SAVAGE RIVER STATE FOREST

ANNUAL WORK PLAN

FISCAL YEAR 2016

Prepared: _____ _____
(Forest Manager) Date

Reviewed: _____ _____
(Regional Manager) Date

Reviewed: _____ _____
(Land Acquisition & Planning) Date

Approved: _____ _____
(Environmental Specialist) Date

State Forest Annual Work Plan

A. Forest Overview

Includes an overview of the forest; history, size, location, special features, etc.

B. AWP summary

Includes number of sales, total harvest acres, acres by harvest method, estimated harvest volume and other important features for the work to be performed during the next year.

C. Maintenance Projects

Includes boundary maintenance, road maintenance, building maintenance and other such projects.

D. Recreation Projects

Includes projects such as campsite improvements, hunting programs, special recreational activities, ATV and hiking trail maintenance, trail grants, signage, and other projects specific to benefiting recreational users of the forest.

E. Special Projects

Includes activities to gain or maintain third party forest certification, GIS databases, and other such activities.

F. Silvicultural Projects

Includes forest harvesting, prescribed fire programs, fertilization, reforestation, and other such projects. This section must include the following:

Final Silvicultural Activities:

1. Site Map
2. Silvicultural Prescription
3. Stand Data (in appendix)

Review Process:

1. Review Summary
2. Interdisciplinary Team Comments (collective)
3. Advisory Committee Comments
4. Public Comments

G. Watershed Improvement Projects

Includes special projects to enhance water quality, wetland restoration, and other such activities.

H. Ecosystem Restoration Projects

Includes projects to manage exotic invasive species, efforts to restore shale barrens or other natural habitats, and other such activities aimed at improving ecosytems.

I. Monitoring Projects

Includes CFI forest inventories, and other inventory projects being conducted on the forest, watershed monitoring, and other such projects.

J. Budget

Includes a proposed budget specific to the forest.

K. Stand Data

Includes a summary of current stand inventory.

.

Savage River State Forest Annual Work-plan for FY 2016

A. Forest Overview

Savage River State Forest is approximately 55,155 acres in size and is situated in the northeastern quadrant of Garrett County in Western Maryland. It is a second growth mixed hardwood forest dominated by oak species, sugar and red maple, black cherry, hickory and ash. Owing to high rainfall and certain topographic features, Savage River State Forest contains many excellent quality growing sites stocked with superior quality trees. The forest contains approximately 4000 acres of conifer plantations, established in the 1940's following state acquisition. Red pine is the dominant tree species within these plantations but other conifers include white pine, Norway spruce, larch, and Scotch pine. These plantations were established as nurse crops to rehabilitate abandoned and depleted farm fields, with the long-term goal of conversion back to native hardwoods as appropriate.

Savage River State Forest has been intensively managed for over 60 years. Forest harvest and grooming operations are undertaken to thin overstocked stands, to effectively deal with public safety concerns, to harvest mature or diseased/dying trees, to improve habitat for certain wildlife species, to assist and provide for certain research needs, to address aesthetic concerns, and to increase the proportion of age/height diversity of forested stands.

B. Annual Work Plan Summary

The FY-2016 Annual Work Plan for Savage River State Forest was formulated during 2014. It contains projects to be undertaken in the areas of Silviculture, Maintenance, Special Projects, and Recreation.

Savage River will harvest approximately 1 million board feet of sawtimber through implementation of the FY-16 Annual Work Plan. The plan involves 23 proposed silvicultural projects within the forest. There is one regeneration harvest, 2 pre-commercial thinnings, and 20 commercial thinnings.

Silvicultural treatment	Acres	Sawtimber Volume (Bd. Ft.)	Pulpwood Volume (cords)
Pre-commercial Thinning	48		
Hdwd. Comm. Thinning	83	201,567	1082
Conifer Comm. Thinning	128	579,834	750
Conifer Regeneration	11	204,973	182

The goal with conifer plantations in Savage River State Forest is to retain them and to the extent possible to increase the acreage with conifer cover. Most of the conifer stands in Savage River State Forest were planted with exotic conifers and as we gradually regenerate these stands we intend to convert them to native species such as white pine and red spruce.

Most of the maintenance projects are of a routine nature. Most recreation work is of a routine nature; however it is expected that the revision of the recreation component of the Sustainable Management Plan will be finished this year. A special effort that began in FY 11 and will be ongoing for the next 2 years is stand level data collection as part of our certification and management efforts. Further, we will be monitoring all of our silvicultural activities five and 10 years post treatment.

A summary of silvicultural activity (planned and implemented) from 2002 to the present can be found on page 56.

C. Maintenance Projects

Routine maintenance projects include: Building repair and maintenance, mowing at the campus, snow removal, repair and replacement of fire rings and tables at the camp sites, brush hogging trails, and repair of road surfaces.

There are 70 plus primitive camp sites that we maintain. Maintenance and upkeep is on-going with major camp site maintenance focused at the end of the winter, prior to major holidays (such as Memorial Day, 4th of July, and Labor Day) and at the end of the camping season.

There are about 101 miles of trail and hardened road surface on the forest and we are maintaining 1/3 of these each year. This maintenance includes brush hogging and repair of road surfaces. We are also using herbicide in areas where it is too steep or narrow to brush hog. In FY 2016 we anticipate beginning a major effort at restoration and improvement of our trails and road system.

There is a public shooting range on the forest that we keep open year round. Maintenance is on-going which includes replacing backboards and general clean-up on a weekly basis. Major efforts are done prior to the holiday seasons and prior to the beginning of the various hunting seasons.

Eighty miles of boundary will be repainted and 5 miles of "lost" boundary will be recovered.

D. Recreation Projects

We will begin implementing the expanded recreation plan that was created in FY 2016.

Phase one of the Continental Divide Loop bike trail that goes through the forest will likely be finished in FY 2015. Phase two will likely be completed in FY 2016, these sections use part of the Meadow Mountain Trail.

The Wildlife and Heritage Service will be working on 2 acres of herbaceous openings, maintaining 25 bluebird boxes, and pruning some 75 fruit trees. They will also be controlling woody vegetation by mowing and prescribed burning on 40 acres of wildlife openings. The Margroff wildlife habitat unit will have another soft edge brushy area created along one of the gas

well areas. The Margroff wildlife habitat unit operating plan will be completed during this fiscal year.

A new ORV trail is currently in the review process; it will be installed in fiscal year 15 or early in fiscal year 16. The use of this new trail along with East Shale Road ORV trail will be regulated with the Compass system, a web-based permitting system. Both trails will be designed to be sustainable and, as part of that, their use will be limited to ensure the stability of the surface and surrounding natural resources. They will also be closed to ORV use to accommodate the hunting public.

E. Special Projects

1. 106 acre "Rounds Property"

The acquisition of the Rounds property has provided a somewhat unique opportunity on Savage River State Forest. Open agricultural land is the most limited habitat type on the state forest. When the Sines property at Keysers Ridge was given to the county for development as a business park, the largest area of open field and agricultural land on SRSF was lost. The acquisition of the Rounds property and other property along Fairview Road has provided some new opportunity to manage open agricultural land again. Grassland and early succession habitat is limited and occurs on state forest primarily as powerline rights of way, reclaimed mine sites, and small plots that have been maintained by the Wildlife and Heritage Service as herbaceous openings that serve as brood habitat and forage areas for wildlife.

The large open area on this property is unique. Because of the extent of open grassland habitat, there may be potential for grassland nesting birds to occur here. A survey of nesting bird species should be conducted early in the next nesting season i.e. June 2015. It should be determined whether there are any grassland birds of concern that occur here. If they do occur, any habitat modifications should be done with consideration for these bird's habitat requirements. If they do not occur, but it is determined that there is potential for them to use this habitat, this should be a top priority for the area.

Absent the presence of grassland birds or potential to attract them, there are many opportunities to manage this area for wildlife. A focus area of early succession wildlife habitat is in place on Fairview Road near this property. This property should become incorporated into that management area. As with that area, a plan should be developed to provide habitat for farmland wildlife species such as Eastern cottontail. This would include planting shrubs in hedgerows or other areas, as well as dense conifer cover such as red spruce along drainage areas or in stands that will serve as winter and thermal cover. Additionally planting some herbaceous cover in pollinator habitat such as clovers, or native wildflowers would provide additional habitat for invertebrates and serve as brood habitat and forage. Some areas would be rotationally mowed to keep open and provide singing and roosting areas for American woodcock. Planting or allowing some areas to grow up in trees and shrubs of various sizes and heights would potentially provide habitat for golden winged warblers that could be a featured species in this area as well.

The house site would serve well as a parking area for public access to the property and other parts of the state forest.

2. 113.6 acre "Owings Property"

This property is primarily an old abandoned field or pasture area. There currently are 3 old trailers on the property that will be removed. Inventory work has not been done on the property as yet, but based on brief recons there is a fair amount of black locust and quite a bit of invasive understory plants.

The goals for acquiring this property were to provide more protection for the Savage River which is down slope from the property and to provide additional protection for the Bear Pen wildland from exotic/invasive plants and unauthorized OHV(Off-highway Vehicle) traffic.

Inventory work will be completed either later this fall or early next spring and management recommendations will be developed then.

3. 272 acre "TNC - Miller/Newman Property

This property is a forested area that contains part of Wolf Swamp. It will likely have an ESA through the center to protect Wolf Swamp. Inventory work has not been done on the property.

There is a fair amount of illegal OHV traffic impacting the swamp and surrounding woods. The inventory work will be completed either later this fall or early next spring and in conjunction with the MD Wildlife and Heritage Service, management recommendations will be completed.

F. Silvicultural Projects

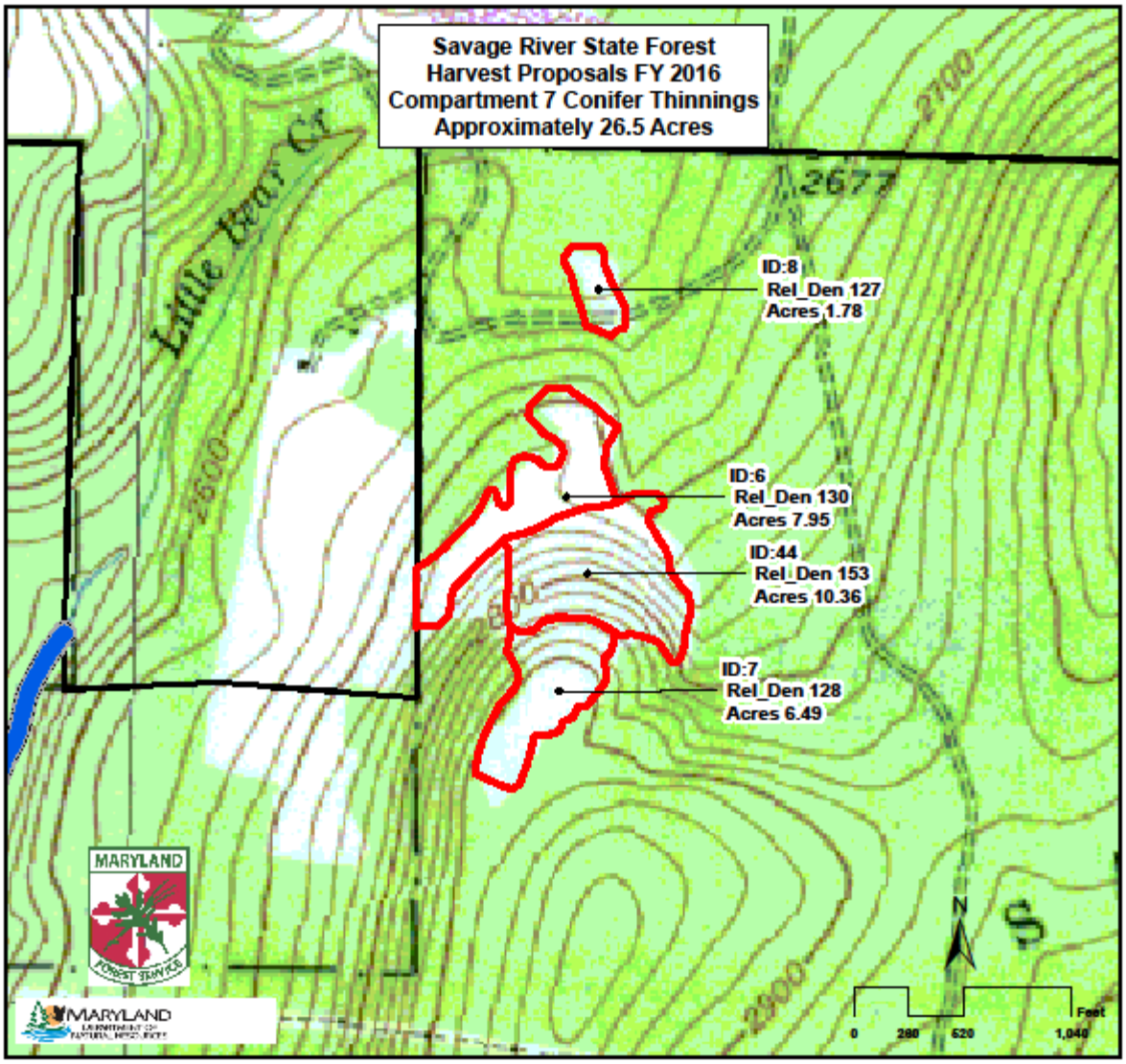
Compartment 7 – Stand 6 Conifer Thinning (7.9 acres)

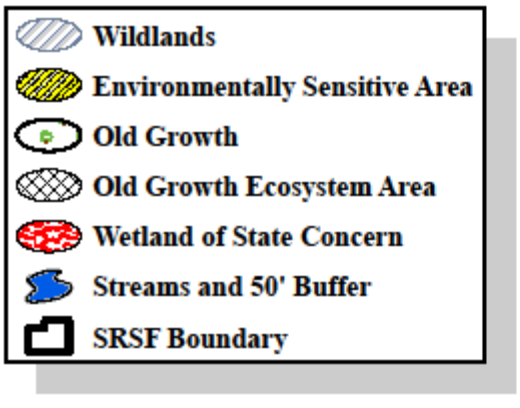
Description/Resource Impact Assessment

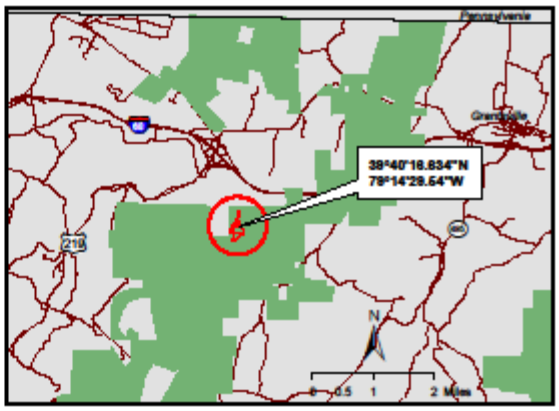
Forest Community Type: The forest type is a conifer plantation type that is dominated by Norway spruce, black cherry, white pine, red pine and red maple. The stand is over-stocked with acceptable growing stock (relative density of 103 percent). (Stand summary data is in Appendix one.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is a stream on the outside of the sale boundary that will be buffered.
Soil Resources: The soils found in this stand are predominately the Meckesville silt loam, 0 – 8 percent slope. The Meckesville series consists of deep, well-drained soils that have a weak to moderate fragipan in the lower part of the subsoil. They are fairly productive soils with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. There is lots of blow down and broken tops in this stand. In places the original planting rows are still distinguishable but in other sections not so. No evidence of recent fire was observed in the stand during the recon.

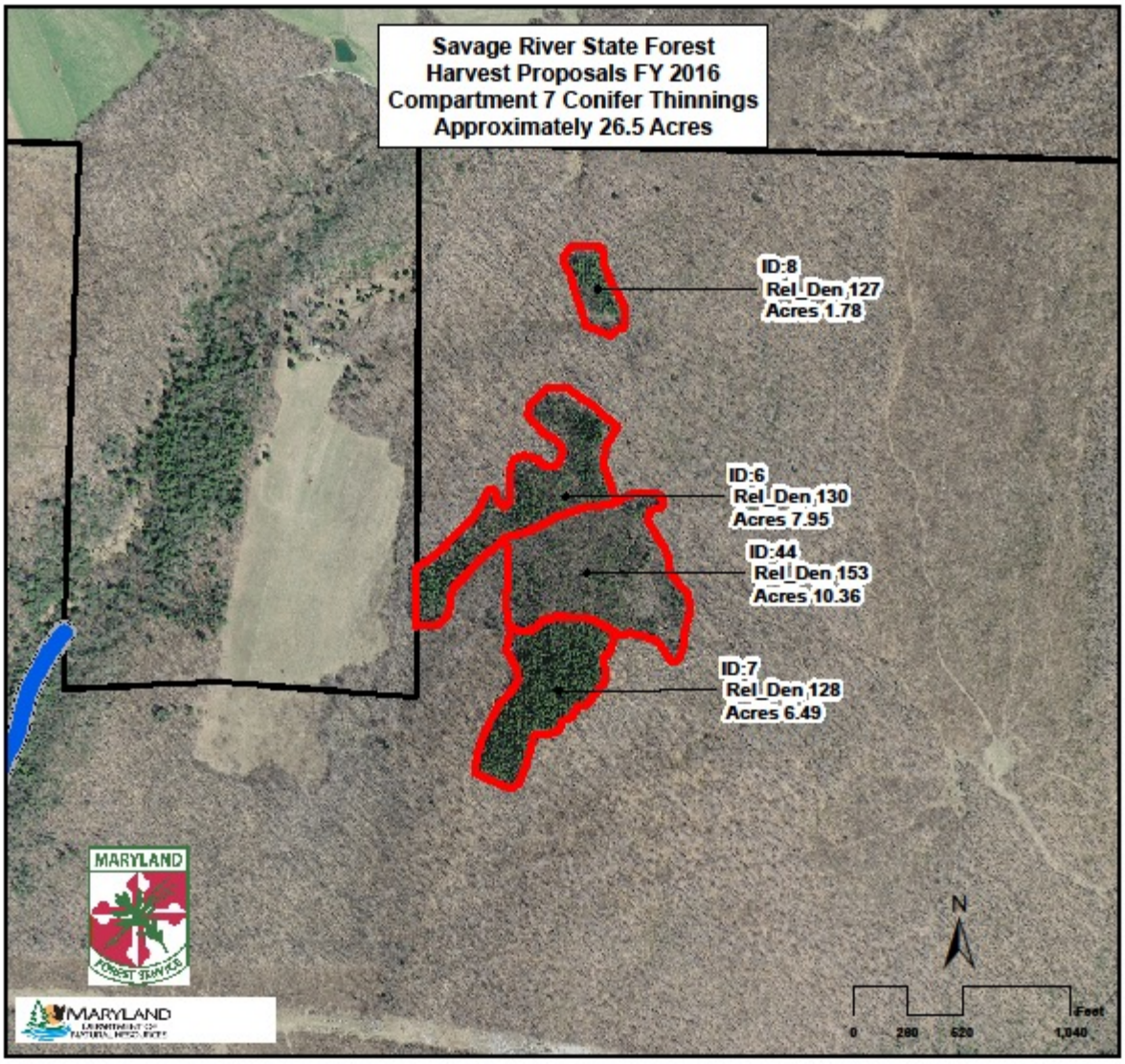
Silvicultural Prescription

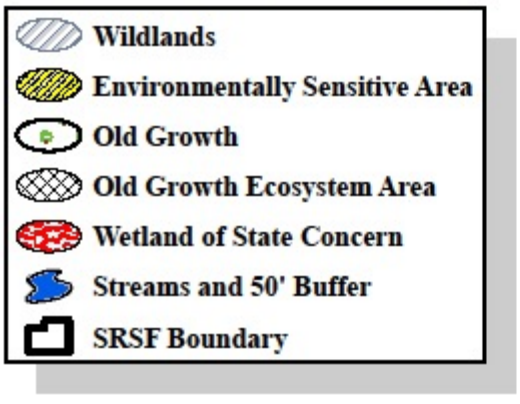
The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 145 square feet. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients. There was mile-a-minute found in this stand, if practical prior to the thinning operation, this invasive plant should be controlled.

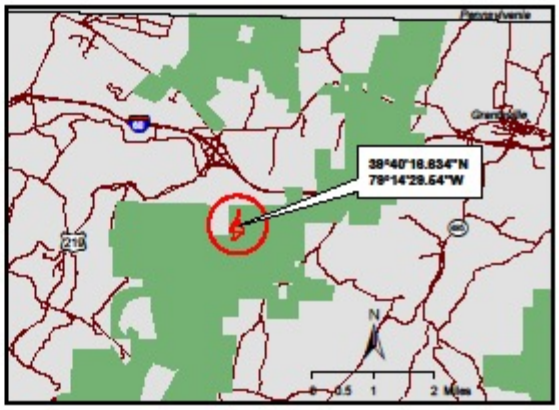

Savage River State Forest
Harvest Proposals FY 2016
Compartment 7 Conifer Thinnings
Approximately 26.5 Acres
Little Bear Cr
2677
2700
2600
2800
2900
ID:8
Rel_Den 127
Acres 1.78
ID:6
Rel_Den 130
Acres 7.95
ID:44
Rel_Den 153
Acres 10.36
ID:7
Rel_Den 128
Acres 6.49
MARYLAND
FOREST SERVICE
MARYLAND
N
S
0
280
520
1,040
Feet


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


39°40'16.834"N
79°14'29.64"W
219
N
0
0.5
1
2 Miles


Savage River State Forest
Harvest Proposals FY 2016
Compartment 7 Conifer Thinnings
Approximately 26.5 Acres
ID:8
Rel_Den 127
Acres 1.78
ID:6
Rel_Den 130
Acres 7.95
ID:44
Rel_Den 153
Acres 10.36
ID:7
Rel_Den 128
Acres 6.49
MARYLAND
FOREST SERVICE
MARYLAND
N
0
280
520
1,040
Feet


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


Pennsylvania
Grantsville
39°40'16.834"N
79°14'29.64"W
219
N
0
0.5
1
2 Miles

Compartment 7 – Stand 7 Conifer Thinning (6.5 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is a conifer plantation type that is dominated by Norway spruce, northern red oak, sweet birch, white pine and red pine. The stand is over-stocked with acceptable growing stock (relative density of 112 percent). (Stand summary data is in Appendix two.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 20 - 35 percent slope. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. They are fairly productive soils with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. There is a fair amount of up-rooted trees and broken tops in this stand. In places the original planting rows are still distinguishable but in other sections not so. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 141 square feet. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients. There was mile-a-minute found in this stand, if practical, prior to the thinning operation this invasive plant should be controlled.

Compartment 7 – Stand 8 Conifer Thinning (1.8 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is a conifer plantation type that is dominated by red pine and white pine. The stand is over-stocked with acceptable growing stock (relative density of 138 percent).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream east of the stand and outside of the sale boundary.
Soil Resources: The soils found in this stand are predominately the Albrights very stony silt loam, 0 – 15 percent slope and Meckesville very stony silt loam, 0 - 8 percent slopes. The Albrights series consists of deep, somewhat poorly drained to moderately drained soils that have a fragipan in the lower part of the subsoil. The Meckesville series consists of deep, well-drained soils that have a weak to moderate fragipan in the lower part of the subsoil. These soils are fairly productive with an estimated site index of about 70 - 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This stand only had one inventory plot taken in it - so prior to implementing the recommendation the stand should be re-examined to verify that the prescription is still valid. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 141 square feet. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 7 – Stand 44 Conifer Thinning (10.3 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by red maple, black cherry, red pine, Norway spruce, white ash and white pine. The stand is over-stocked with acceptable growing stock (relative density of 71 percent). (Stand summary data is in Appendix three.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 20 - 35 percent slope and Calvin & Lehew channery loams, 35 – 50 percent slopes. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. The Calvin and Lehew series are moderately deep, well drained soils that formed in material weathered in place. These soils are fairly productive with an estimated site index of about 70 - 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. In places the original planting rows are still distinguishable but in other sections not so. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 131 square feet. The focus will include removing the poor quality stems to the extent possible. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 11 – Stand 10 Conifer Thinning (8.4 acres)

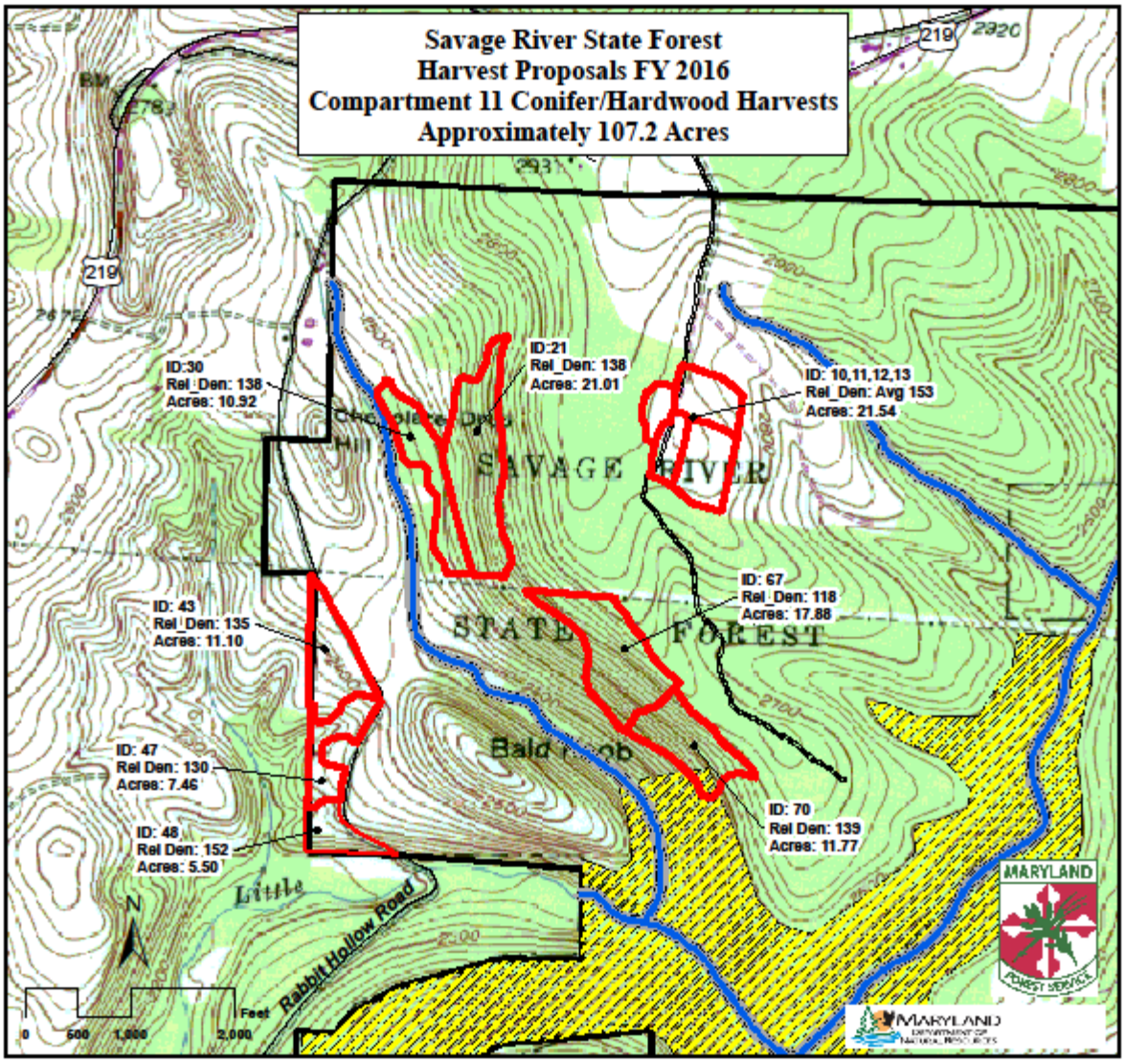
Description/Resource Impact Assessment

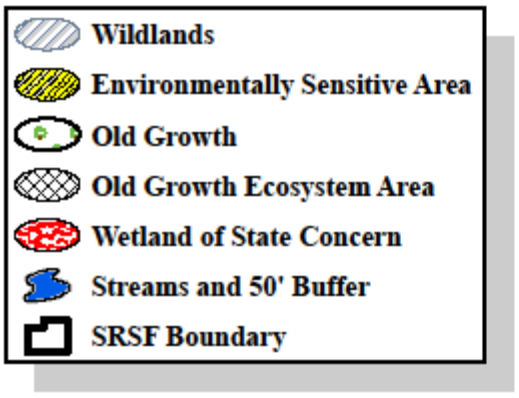
Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by Norway spruce, red maple, black cherry, red oak and black oak. The stand is over-stocked with acceptable growing stock (relative density of 113 percent). (Stand summary data is in Appendix four.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the north side and east side of the stand about 700 feet beyond the sale boundary.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 0 - 10 percent slope. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. It is hard to find original planting rows. Evidence of recent fire was not observed in the stand during the recon.

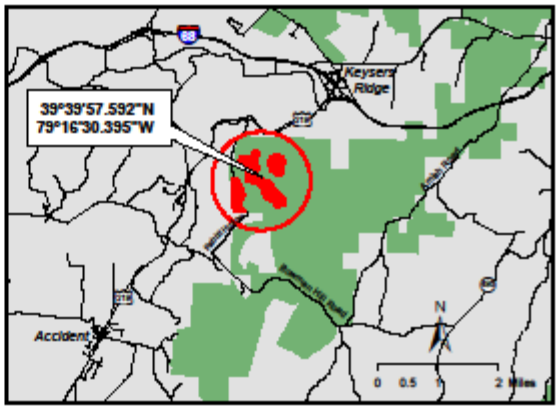
Silvicultural Prescription

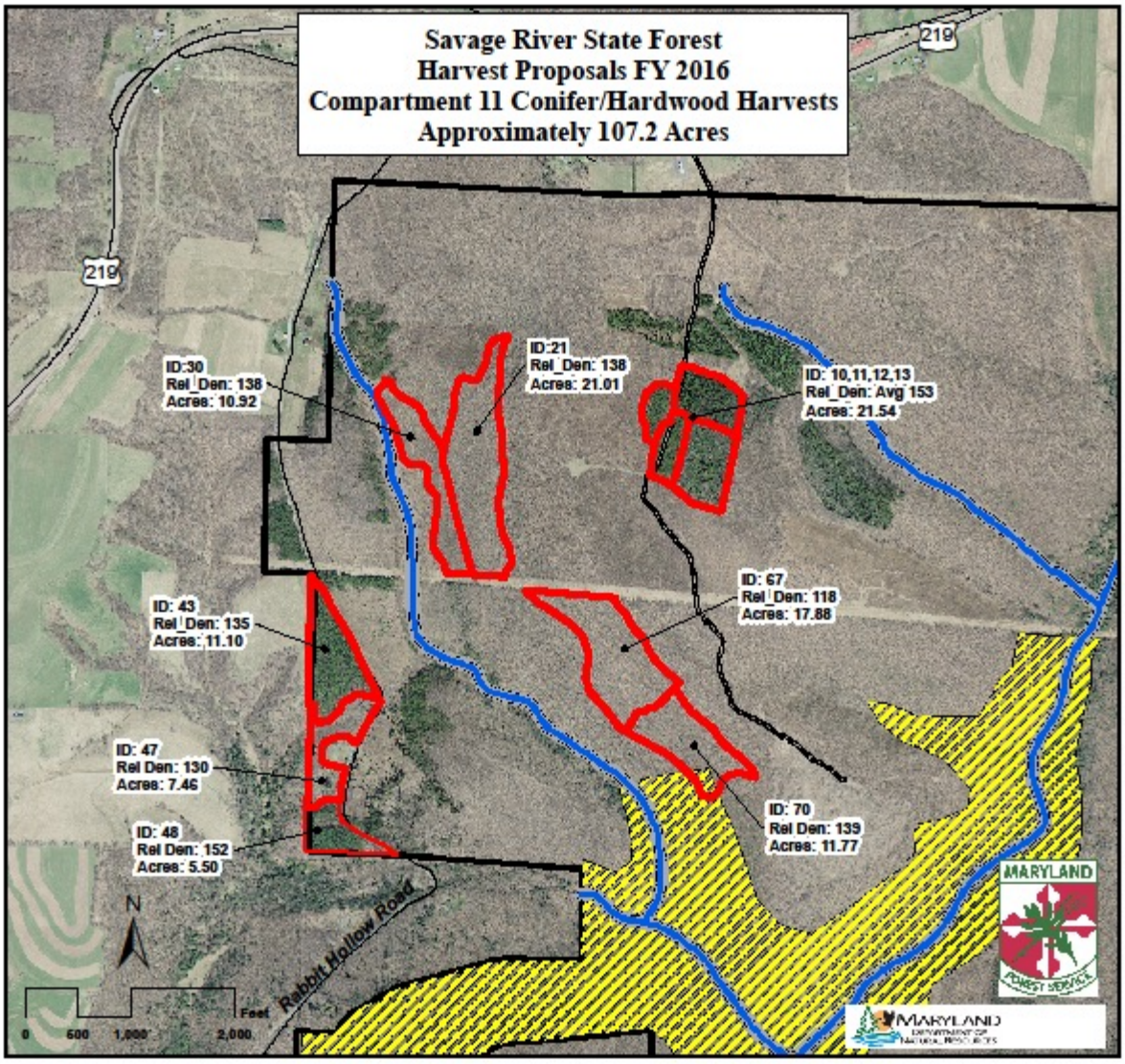
The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 136 square feet. The focus will include removing the poor quality stems to the extent possible. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

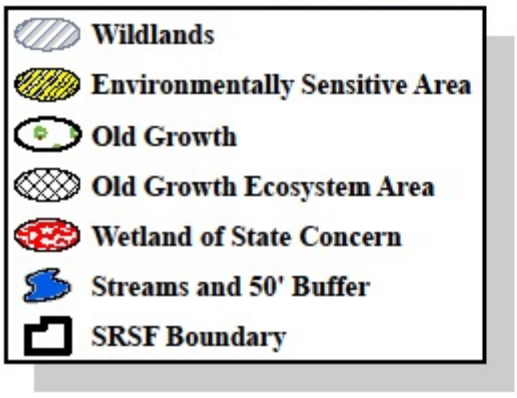
Stands 10 through 13 will be marked independently but will be sold together.

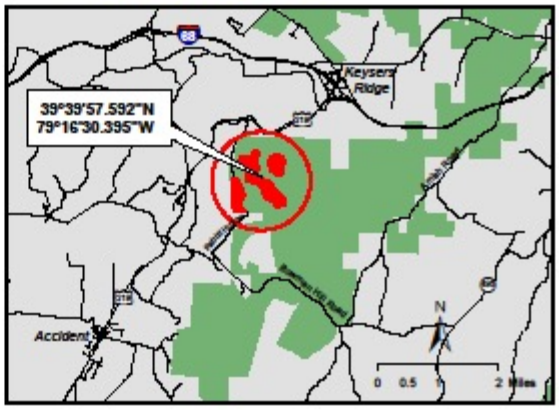

Savage River State Forest
Harvest Proposals FY 2016
Compartment 11 Conifer/Hardwood Harvests
Approximately 107.2 Acres
ID:30
Rel_Den: 138
Acres: 10.92
ID:21
Rel_Den: 138
Acres: 21.01
ID: 10,11,12,13
Rel_Den: Avg 153
Acres: 21.54
ID: 43
Rel_Den: 135
Acres: 11.10
ID: 67
Rel_Den: 118
Acres: 17.88
ID: 47
Rel Den: 130
Acres: 7.46
ID: 48
Rel Den: 152
Acres: 5.50
ID: 70
Rel Den: 139
Acres: 11.77
SAVAGE RIVER
STATE FOREST
Little
Rabbit Hollow Road
219
MARYLAND
FOREST SERVICE
MARYLAND
Feet
0
600
1,200
2,000
N


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


39°39'57.592"N
79°16'30.395"W
Keysers Ridge
Accident
N
0
0.5
1
2 Miles


Savage River State Forest
Harvest Proposals FY 2016
Compartment 11 Conifer/Hardwood Harvests
Approximately 107.2 Acres
219
219
ID:30
Rel_Den: 138
Acres: 10.92
ID:21
Rel_Den: 138
Acres: 21.01
ID: 10,11,12,13
Rel_Den: Avg 153
Acres: 21.54
ID: 67
Rel_Den: 118
Acres: 17.88
ID: 43
Rel_Den: 135
Acres: 11.10
ID: 47
Rel Den: 130
Acres: 7.46
ID: 48
Rel Den: 152
Acres: 5.50
ID: 70
Rel Den: 139
Acres: 11.77
N
Rabbit Hollow Road
0 600 1,000 2,000 Feet
MARYLAND
FOREST SERVICE
MARYLAND


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


39°39'57.592"N
79°16'30.395"W
Keysers Ridge
Accident
N
0 0.5 1 2 Miles

Compartment 11 – Stand 11 Conifer Thinning (3.7 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by red pine, black cherry, Norway spruce, red oak, red maple and white ash. The stand is over-stocked with acceptable growing stock (relative density of 135 percent). (Stand summary data is in Appendix five.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 0 - 10 percent slope. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand has been thinned by removing every third row. The residual planting rows are still distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 169 square feet. This will be accomplished by selectively thinning between rows. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Stands 10 - 13 will be marked independently but will be sold together.

Compartment 11 – Stand 12 Conifer Thinning (6.7 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by Norway spruce, black cherry, red maple, black locust and sweet birch. The stand is over-stocked with acceptable growing stock (relative density of 120 percent). (Stand summary data is in Appendix six.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the north side of the stand and it will be buffered.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 0 - 10 percent slope and Ernest silt loams, 3 – 8 percent slopes. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. The Ernest series consists of deep, moderately well drained soils that have a firm, brittle fragipan in the lower part of the subsoil. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand does not appear to have been thinned which has resulted in the overstocked condition. It is hard to find original planting rows. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 190 square feet. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Stands 10 - 13 will be marked independently but will be sold together.

Compartment 11 – Stand 13 Conifer Thinning (2.8 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by red pine, black cherry, and Scot's pine. The stand is over-stocked with acceptable growing trees (relative density of 100 percent). (Stand summary data is in Appendix seven.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the north side of the stand and it will be buffered.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 0 - 10 percent slope. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1940's. The stand has been thinned by removing every third row. The residual planting rows are still distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 120 square feet. This will be accomplished by selectively thinning between rows. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Stands 10 - 13 will be marked independently but will be sold together.

Compartment 11 – Stand 21 – Commercial Thinning on 21 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by chestnut oak, red maple and red oak. Other species present include: black cherry, black gum, American beech, sweet birch, white oak and cucumber tree. The stand is overstocked and has a relative density of 120 percent and a basal area of 153 sq. ft. (Stand summary data is included in Appendix eight).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: An intermittent stream that feeds into Little Bear Creek is approximately 400 feet down slope from the this stand.
Soil Resources: The soils found in this stand are predominately the stony land, steep type. The soil material between the stones in places resembles soils of several series, but generally it lacks distinct horizonation. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. There is no evidence of past fire within the stand.

Silvicultural Prescription

This stand is approaching maturity and there is very little advanced regeneration in the stand. These two characteristics drive the recommendation to prepare the stand for regeneration. The first step is to control the striped maple and witch hazel in the shrub layer and the abundant ferns. If a broadcast application is practical then the entire shrub and fern layers can be controlled. This will increase the light level on the forest floor and stimulate the young oak seedlings present and stimulate the germination of any new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood, the unacceptable sawtimber and adjusting the spacing. The target residual basal area is 100 sq. ft. Half of the standing dead trees should be removed during this thinning.

The stand should be examined again in ten years to determine if it is ready for a regeneration cut or a second Shelterwood cut.

Compartment 11 – Stand 30 – Pre-commercial Thinning on 10.9 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed hardwood type that is dominated by American beech, cucumber tree and sweet birch. Other species present include: black cherry, black cherry, red oak, yellow birch, sugar maple and yellow poplar. The stand is overstocked and has a relative density of 138 percent and a basal area of 153 sq. ft. (Stand summary data is included in Appendix nine).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: An intermittent stream that feeds into Little Bear Creek is between 50 and 100 feet down slope from the this stand.
Soil Resources: The soils found in this stand are predominately the Dekalb channery loam, 20 to 35 percent slopes, moderately eroded. The Dekalb series consists of moderately deep, well drained soils. These soils are fairly productive with an estimated site index of about 80 for mixed oak. Severe erosion potential so the productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. The stand was harvested again in 1984. There is no evidence of past fire within the stand.

Silvicultural Prescription

This stand has been growing for thirty years since it was harvested and is currently overstocked with pole sized trees. The recommendation for this stand is to remove the unacceptable growing stock and to improve the spacing for the residual stand. There is not enough volume to sell this stand by itself.

Prior to marking this stand it should have a more intense inventory conducted, to help decide whether a pre-commercial thinning combined with stand 21 or an independent crop tree release should be done.

Compartment 11 – Stand 43 Conifer Regeneration Harvest (11.1 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by white pine and black cherry. Other species present include sugar maple, black locust, sweet birch, Scot's pine and red maple. The stand is overstocked with acceptable growing stock having a relative density of 112 percent. (Stand summary data is in Appendix ten.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the south side of the stand and on the west side of the stand, these areas will be buffered.
Soil Resources: The soils found in this stand are predominately the Gilpin channery silt loam, 0 - 10 percent slope. The Gilpin series consists of moderately deep, well-drained soils formed on uplands in material weathered from gray to brown, acid shale and siltstone that commonly includes some thin beds of sandstone. These soils are fairly productive with an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1960's. Appears to have been previously thinned but the residual planting rows are not distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to develop a mixed hardwood conifer type by regenerating the stand. The first activity to be completed in this stand is to control the exotic invasive plants such as Japanese barberry, striped maple and honeysuckle with herbicides. The second activity to be completed in this stand will be accomplished by cutting and removing all the overstory trees. The final activity in this stand is to spot herbicide and artificially plant 50 white pine seedlings to the acre and let the native hardwood fill in the gaps.

Compartment 11 – Stand 47 – Pulpwood Thinning on 8.0 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed pine-hardwood type that is dominated by sugar maple, white pine and red maple. Other species present include: black cherry, black locust, Scot's pine, cucumber tree, white ash, white oak and sweet birch. The stand is overstocked and has a relative density of 130 percent and a basal area of 150 sq. ft. (Stand summary data is included in Appendix eleven).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: An intermittent stream feeds into Little Bear Creek on the north side of this stand.
Soil Resources: The soils found in this stand are predominately the Calvin-Gilpin-Ungers channery loam type. These soils are moderately deep to deep over bedrock and are well drained. These soils are fairly productive with an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site was part of an abandoned homestead area. The historical significance is probably not high, but until a formal evaluation is completed this area will be buffered along with the intermittent stream that flows nearby. There is no evidence of past fire within the stand.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. The first activity to be completed in this stand is to control the exotic invasive plants such as multiflora rose and garlic mustard with herbicides. The second activity to be completed in this stand will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 100 square feet. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients This stand is a pole timber sized stand.

This sale should be done in conjunction with stand 43.

Compartment 11 – Stand 48 Conifer Thinning Harvest (5.5 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by white pine, red pine and sugar maple. Other species present include black cherry, Scot's pine and Norway spruce. The stand is over-stocked with acceptable growing stock (relative density of 142 percent). (Stand summary data is in Appendix twenty-two.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: Cove Run is approximately 300 feet from the western boundary of the stand and Little Bear Creek is approximately 400 feet from the southern boundary of the stand. There is no need to buffer these streams as they are quite a distance from the stand.
Soil Resources: The soils found in this stand are predominately the Calvin-Gilpin-Lehew channery loams, 20 - 35 percent slope. These soils consist of moderately deep, medium textured, well-drained soils formed on uplands. These soils are fairly productive with an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1960's. Appears to have been previously thinned but the residual planting rows are not distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. The first activity to be completed in this stand is to control the exotic invasive plants such as multiflora rose, Japanese barberry and Japanese knotweed with herbicides. The second activity to be completed in this stand will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 150 square feet. This will be done by removing all the poor quality red and Scot's pine; then thinning among the Norway spruce and white pine. If there is sufficient space where the red and Scot's pine are removed, then that area should be planted with red spruce.

Compartment 11 – Stand 67 – Pulpwood Thinning on 17.9 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by chestnut oak, red maple and red oak. Other species present include: sweet birch, black cherry, black walnut, white oak, black gum and service berry. The stand is overstocked and has a relative density of 118 percent and a basal area of 156 sq. ft. (Stand summary data is included in Appendix twelve).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: An intermittent stream that feeds into Little Bear Creek is approximately 500 feet down slope from the stand.
Soil Resources: The soils found in this stand are predominately the stony land, steep type. The soil material between the stones in places resembles soils of several series, but generally it lacks distinct horizonation. These soils are fairly productive with an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. There is no evidence of past fire within the stand.

Silvicultural Prescription

This stand is approaching maturity and there is very little advanced regeneration in the stand. These two characteristics drive the recommendation to prepare the stand for regeneration. The first step is to control the striped maple, witch hazel and green briar in the shrub layer and the fairly abundant ferns. If a broadcast application is practical then the entire shrub and fern layers can be controlled. This will increase the light level on the forest floor and stimulate the young oak seedlings present and stimulate the germination of any new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood and the unacceptable sawtimber. The target residual basal area is 100 sq. ft. The final step in anticipation of the regeneration cut would be to install a fence on approximately ½ of the stand.

The stand should be examined again in ten years to determine if it is ready for a regeneration cut or a second Shelterwood cut.

Compartment 11 – Stand 70 – Commercial Thinning on 21 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by chestnut oak, red maple and red oak. Other species present include: black gum, sweet birch, scarlet oak, American beech, white oak and eastern hemlock. The stand is overstocked and has a relative density of 139 percent and a basal area of 165 sq. ft. (Stand summary data is included in Appendix thirteen).
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription. Southwestern corner intersects an ESA and is also very steep (>50 %).
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: An intermittent stream that feeds into Little Bear Creek is approximately 500 feet down slope from the this stand.
Soil Resources: The soils found in this stand are predominately the stony land, steep type. The soil material between the stones in places resembles soils of several series, but generally it lacks distinct horizonation. These soils are fairly productive with an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. There is no evidence of past fire within the stand.

Silvicultural Prescription

This stand is approaching maturity and there is very little advanced regeneration in the stand. Before beginning the work in this stand we will need to coordinate with Wildlife and Heritage Service the exact boundary of the ESA and permitted management activities in this area. Above the ESA, there are two characteristics that drive the recommendation to prepare the stand for regeneration. The first step is to reduce the mountain laurel and witch hazel in the shrub layer and the bracken ferns. If a broadcast application is practical, then the entire shrub and fern layers can be controlled. This will increase the light level on the forest floor and stimulate the young oak seedlings present and stimulate the germination of any new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood and the unacceptable sawtimber. The target residual basal area is 110 sq. ft. The final step in anticipation of the regeneration cut would be to install a fence on approximately ½ the stand.

The stand should be examined again in ten years to determine if it is ready for a regeneration cut or a second Shelterwood cut.

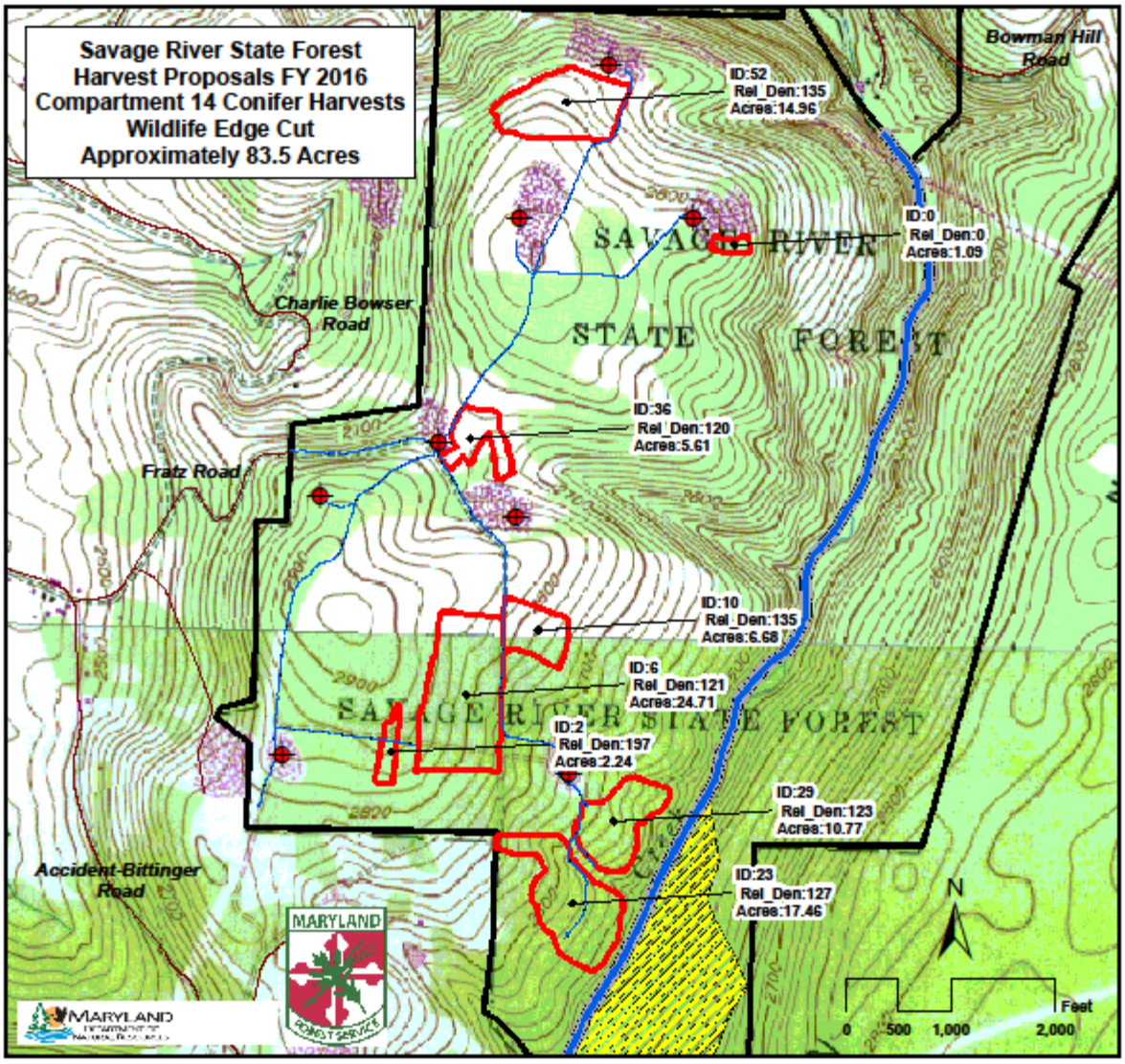
Compartment 14 – Stand 2 Conifer Thinning (2.0 acres)

Description/Resource Impact Assessment

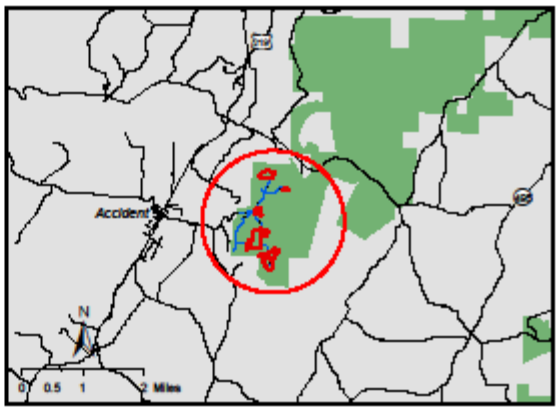
Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by white pine, black cherry, red maple and Norway spruce. The stand is over-stocked with acceptable growing stock (relative density of 147 percent). (Stand summary data is in Appendix fourteen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the southwest side of the stand approximately 700 down slope.
Soil Resources: The soils found in this stand are predominately Dekalb and Leetonia, very stony sandy loams, 0 - 15 percent slope. These soils are moderately deep, well-drained soils formed from sandstone. These soils have an estimated site index of about 60 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. The stand has been thinned. The residual planting rows are not distinguishable. Evidence of recent fire was not observed in the stand during the recon.

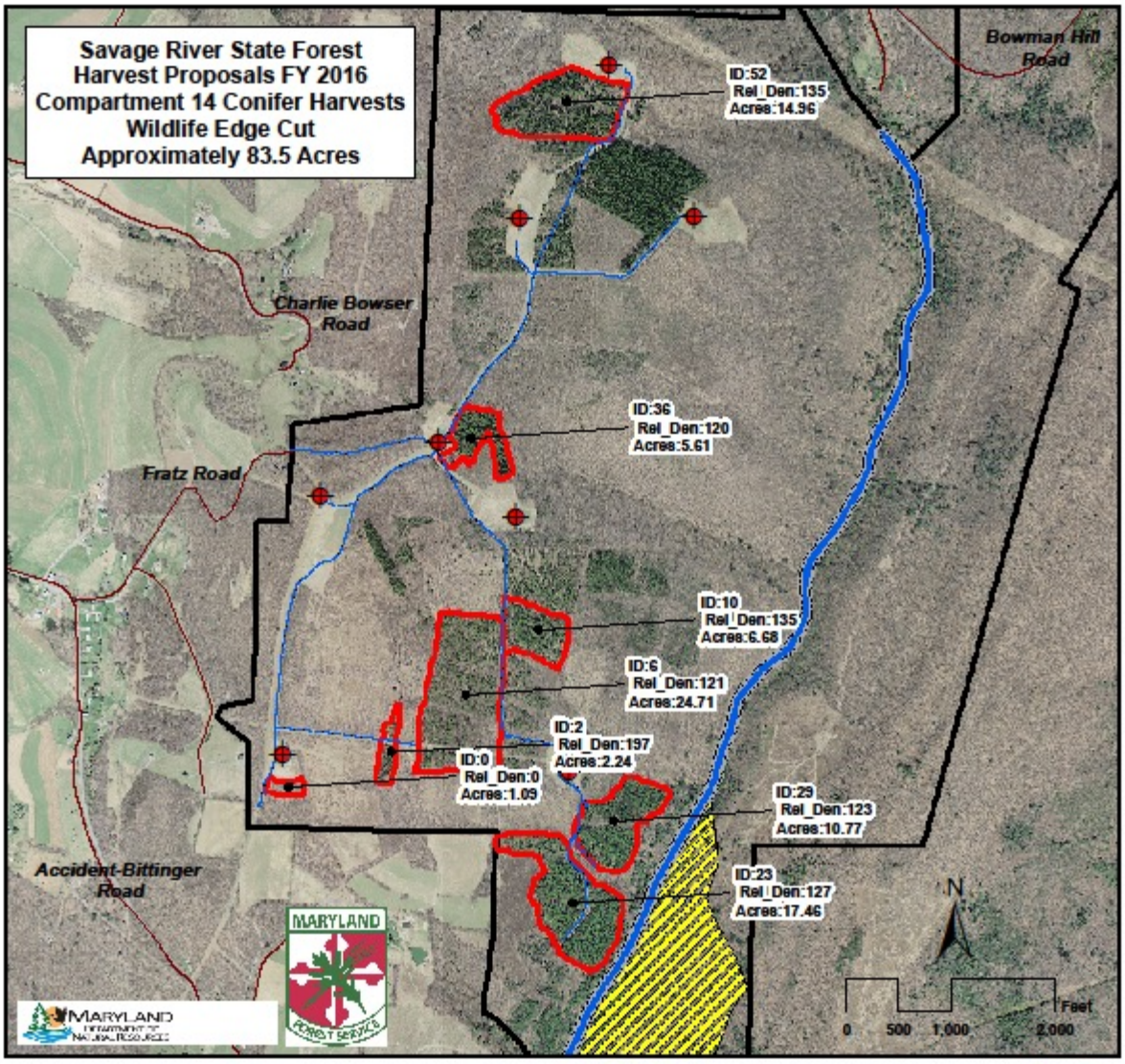
Silvicultural Prescription

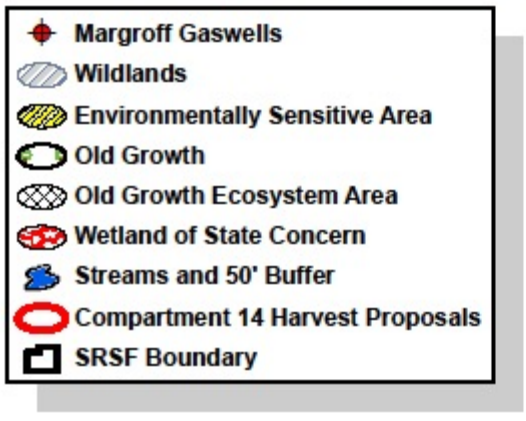
The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 186 square feet. This will be accomplished by selectively thinning the poorest quality trees. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

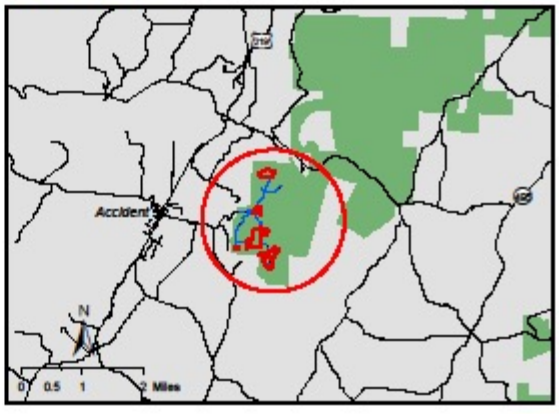


- Margroff Gaswells
- Wildlands
- Environmentally Sensitive Area
- Old Growth
- Old Growth Ecosystem Area
- Wetland of State Concern
- Streams and 50' Buffer
- Compartment 14 Harvest Proposals
- SRSF Boundary




Savage River State Forest
Harvest Proposals FY 2016
Compartment 14 Conifer Harvests
Wildlife Edge Cut
Approximately 83.5 Acres
Bowman Hill Road
Charlie Bowser Road
Fratz Road
Accident-Bittinger Road
ID:52
Rel_Den:135
Acres:14.96
ID:36
Rel_Den:120
Acres:5.61
ID:10
Rel_Den:135
Acres:6.68
ID:6
Rel_Den:121
Acres:24.71
ID:2
Rel_Den:197
Acres:2.24
ID:0
Rel_Den:0
Acres:1.09
ID:29
Rel_Den:123
Acres:10.77
ID:23
Rel_Den:127
Acres:17.46
N
0 500 1,000 2,000 Feet
MARYLAND
FOREST SERVICE
MARYLAND DEPARTMENT OF NATURAL RESOURCES


Margroff Gaswells
Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
Compartment 14 Harvest Proposals
SRSF Boundary


Accident
N
0 0.5 1 2 Miles

Compartment 14 – Stand 6 Conifer Thinning (24.7 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by white pine, black cherry, and red maple. Other species present include: sweet birch, black locust, black gum, red pine and white oak The stand is over-stocked with a relative density of 121 percent and a basal area of 169 square feet. (Stand summary data is in Appendix fifteen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately Dekalb channery loam, 0 - 10 percent slope. These soils are moderately deep, well-drained soils of medium texture. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. The stand has been thinned. The residual planting rows are not easily distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 112 square feet. This will be accomplished by selectively thinning the poorest quality trees. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 10 Conifer Thinning (6.7 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer type that is dominated by white pine and red pine. Other species present include: red maple, chestnut oak, sweet birch and black cherry. The stand is over-stocked with a relative density of 135 percent and a basal area of 180 square feet. (Stand summary data is in Appendix sixteen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately Calvin, Ungers, Lehew channery loam, 10 - 20 percent slope. These soils are moderately deep, well-drained soils on the uplands. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. The planting was laid out in a square pattern. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 120 square feet. The stand had a previous thinning where every third row was removed. This thinning will be accomplished by selectively thinning within the rows. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 23 Conifer Thinning (17.5 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer type that is dominated by white pine. Other species present include: red maple, black cherry, white ash, sweet birch, black locust and pin cherry. The stand is over-stocked with a relative density of 127 percent and a basal area of 180 square feet. (Stand summary data is in Appendix seventeen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There is an intermittent stream on the northern part of the sale boundary that feeds into Bear Creek and Bear Creek itself is approximately 200 from the eastern boundary.
Soil Resources: The soils found in this stand are predominately Gilpin channery silt loam, 10 - 20 percent slope. The Gilpin soils are moderately deep, well-drained soils formed on the uplands. These soils are fairly productive and have an estimated site index of about 80 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. The planting was laid out with most of the rows going downhill towards Bear Creek. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. The stand had a previous thinning where every third row was removed. The proposed treatment will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 120 square feet. This will be accomplished by selectively thinning every third tree within rows. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 29 Conifer Thinning (10.8 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer type that is dominated by white pine and red pine. Other species present include: black cherry, red maple and sugar maple. The stand is overstocked with a relative density of 123 percent and a basal area of 207 square feet. (Stand summary data is in Appendix eighteen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: The stand boundary is approximately 500 feet upslope from Bear Creek. Plus there is an intermittent stream on the south that separates this stand from stand 23.
Soil Resources: The soils found in this stand are predominately Calvin, Ungers, Lehew channery loam, 10 - 20 percent slope. These soils are moderately deep, well-drained soils on the uplands. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. The planting was laid out with most of the rows going downhill towards Bear Creek. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 137 square feet. This will be accomplished by selectively thinning within the rows. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 36 Conifer Thinning (5.6 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is a Norway spruce plantation. The stand is over-stocked with a relative density of 120 percent and a basal area of 230 square feet. (Stand summary data is in Appendix nineteen.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the sale boundary.
Soil Resources: The soils found in this stand are predominately Dekalb channery loam, 0 - 10 percent slope. These soils are moderately deep, well-drained soils of medium texture. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. Appears to have been thinned but residual rows are not distinguishable. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 153 square feet. This will be accomplished by selectively thinning every third tree. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 52 Conifer Thinning (15.0 acres)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed conifer - hardwood type that is dominated by Norway spruce, red oak and black cherry. Other species present include: red maple, sweet birch white ash, and black locust. The stand is over-stocked with a relative density of 135 percent and a basal area of 190 square feet. (Stand summary data is in Appendix twenty.)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the stand boundary.
Soil Resources: The soils found in this stand are predominately Dekalb channery loam, 0 - 10 percent slope. These soils are moderately deep, well-drained soils of medium texture. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site was an abandoned field that was planted to conifers during the 1950's. It appears that this stand has been thinned. Evidence of recent fire was not observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment in this stand is to promote the vigor and health of the residual trees. This will be accomplished by cutting and removing approximately 1/3 of the basal area of the standing timber. The residual basal area will be approximately 126 square feet. This will be accomplished by selectively thinning every third tree. The selectively thinned trees will be unacceptable small saw timber size and pulpwood size trees. The residual trees will be evenly distributed across the stand and will be receiving more sunlight, water and nutrients.

Compartment 14 – Stand 62 Wildlife edge cut (1 acre)

Description/Resource Impact Assessment

Forest Community Type: The forest type is now a mixed hardwood type that is dominated by red oak and black cherry. Other species present include: red maple, sweet birch white ash, and black locust. The stand is over-stocked with a relative density of 135 percent and a basal area of 190 square feet.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within or near the stand boundary.
Soil Resources: The soils found in this stand are predominately Dekalb channery loam, 0 - 10 percent slope. These soils are moderately deep, well-drained soils of medium texture. These soils have an estimated site index of about 70 for mixed oak. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The goal of the silvicultural treatment is to create a soft edge facing the gas well from the southern side. This will be accomplished by cutting and leaving all the trees on this side for a depth of 66 feet.

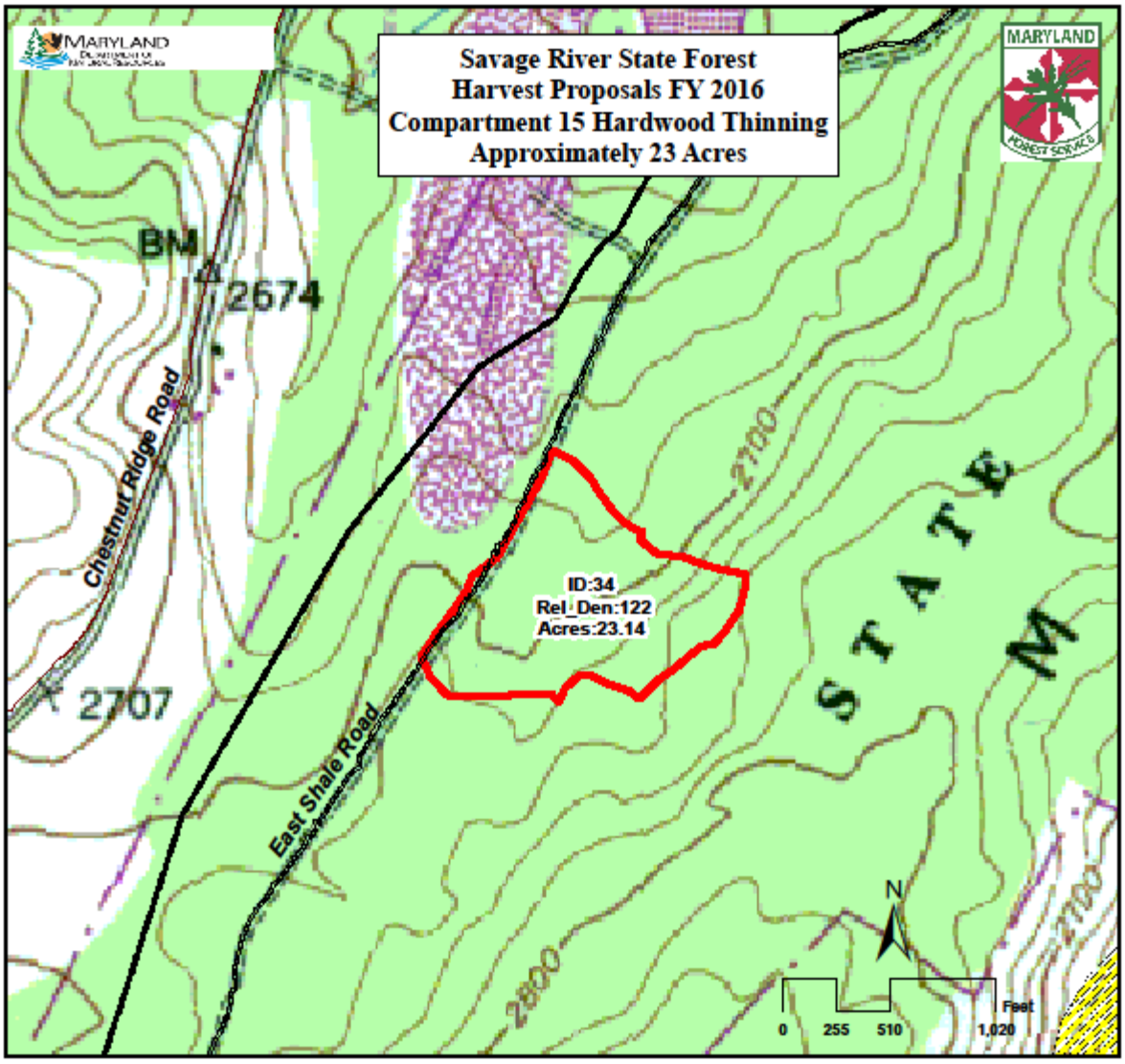
Compartment 15 – Stand 34 Commercial Thinning (23.1 acres)

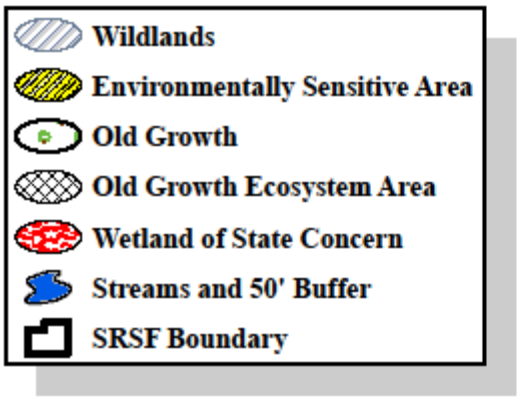
Description/Resource Impact Assessment

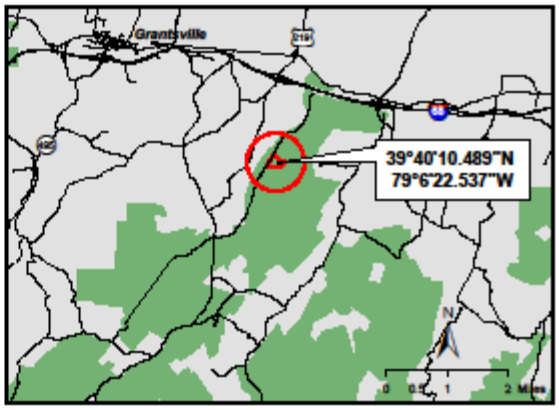
Forest Community Type: This area is a mixed hardwood type dominated by northern red oak and red maple. Other species present include: white oak, chestnut oak, sweet birch, black cherry, sassafras, American beech and white ash. The stand is overstocked, the relative density is 122 percent and the basal area is 172 sq. ft. (Stand summary data is included in Appendix twenty-one)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: Along the northern portion of the stand there are a number of intermittent streams.
Soil Resources: The soils found on this site are the Cookport and Ernest very stony silt loams. These soils are somewhat poorly drained to well drained and very stony at the surface. The soils are fairly productive with an estimated site index of 80 feet. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

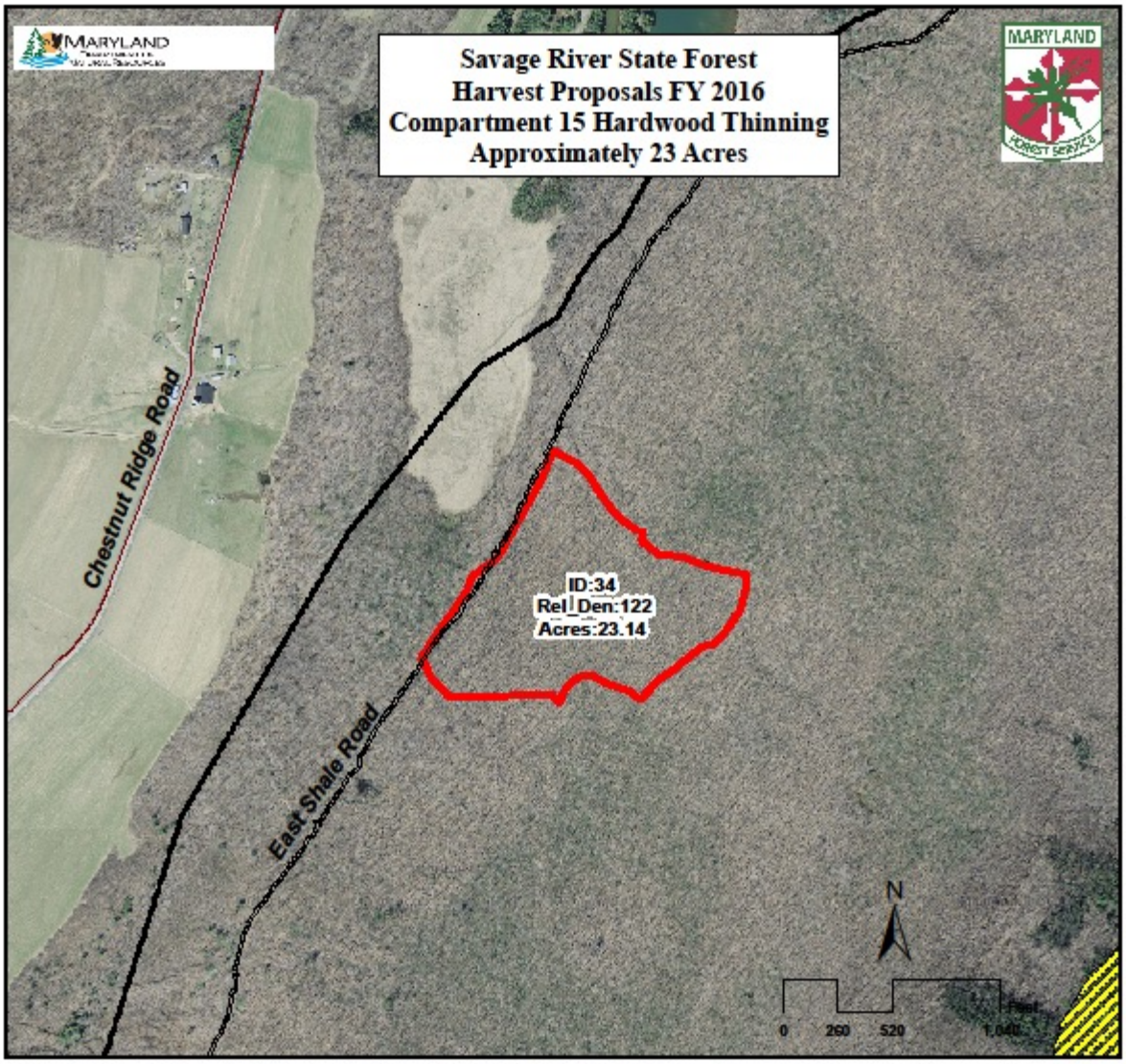
Silvicultural Prescription

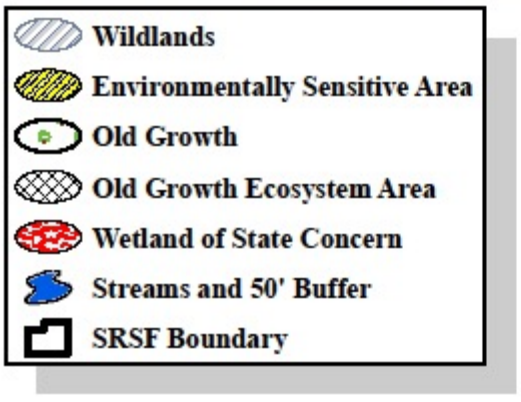
This stand is approaching maturity and there is very little advanced regeneration in the stand. These two characteristics drive the recommendation to prepare the stand for regeneration. The first step is to control the striped maple and witch hazel in the shrub layer and the abundant ferns. If a broadcast application is practical then the entire shrub and fern layers can be controlled. This will increase the light level on the forest floor and stimulate the young oak seedlings present and stimulate the germination of any new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood and the unacceptable sawtimber. The target residual basal area is 115 sq. ft.

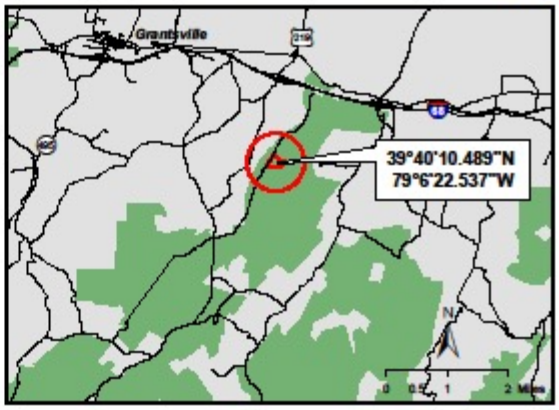

Savage River State Forest
Harvest Proposals FY 2016
Compartment 15 Hardwood Thinning
Approximately 23 Acres
MARYLAND
FOREST SERVICE
BM
2674
Chestnut Ridge Road
2707
East Shale Road
2100
2800
ID:34
Rel_Den:122
Acres:23.14
STATE
N
0
255
510
1,020
Feet


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


Grantsville
39°40'10.489"N
79°6'22.537"W
N


MARYLAND
Savage River State Forest
Harvest Proposals FY 2016
Compartment 15 Hardwood Thinning
Approximately 23 Acres
MARYLAND
FOREST SERVICE
Chestnut Ridge Road
East Shale Road
ID:34
Rel_Den:122
Acres:23.14
N
0
260
520
Feet


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


Grantsville
39°40'10.489"N
79°6'22.537"W
N
0
1
2 Miles

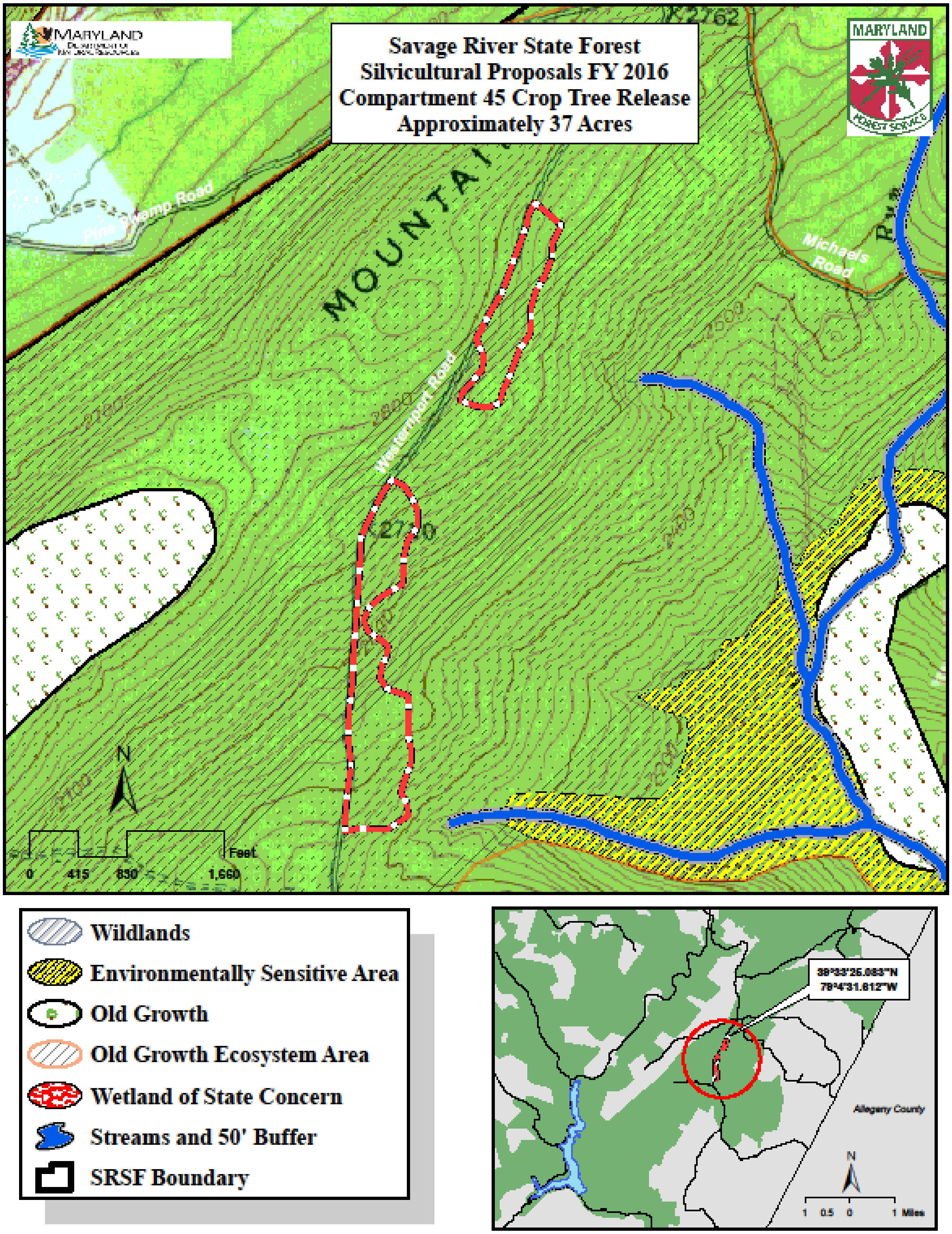
Compartment 45 – Crop Tree Release (37 acres)

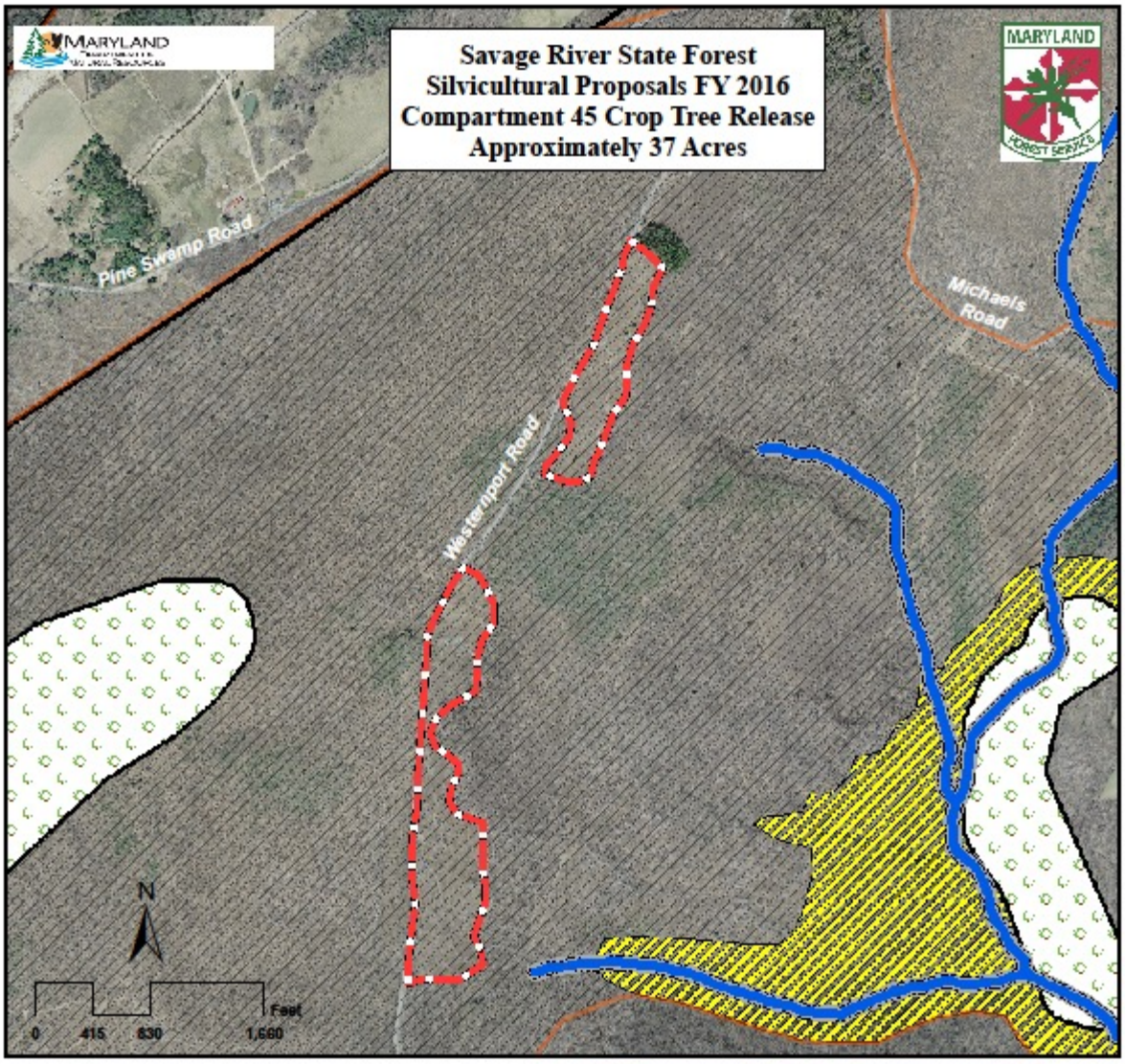
Description/Resource Impact Assessment

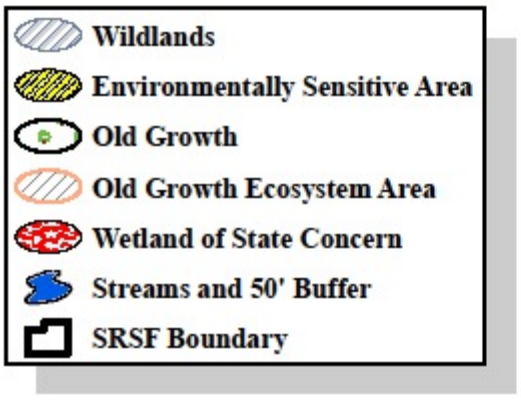
Forest Community Type: This area is a mixed hardwood type dominated by sweet birch and red maple. Other species present include: black cherry, chestnut oak, northern red oak, cucumber tree, black locust, scarlet oak, hickory, sassafras and American chestnut. The stand is adequately stocked with a relative density of 70 percent and a basal area 57 (Stand summary data is included in Appendix twenty-three)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site; however this stand is part of the Old Growth Ecosystem Management Area (OGEMA).
Water Resources: The headwaters to Mill's Run are approximately 500+ feet east of the stand boundaries.
Soil Resources: The soils found on this site are the Dekalb and Leetonia very stony sandy loams. These soils are well drained, fairly acid and very stony at the surface. The soils are somewhat productive with an estimated site index of 60 feet. The productivity of the site will be protected since there will be no roads installed during this treatment.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. The stand had a regeneration clearcut in the late 2003. No evidence of recent fire activity was observed in the stand during the recon.

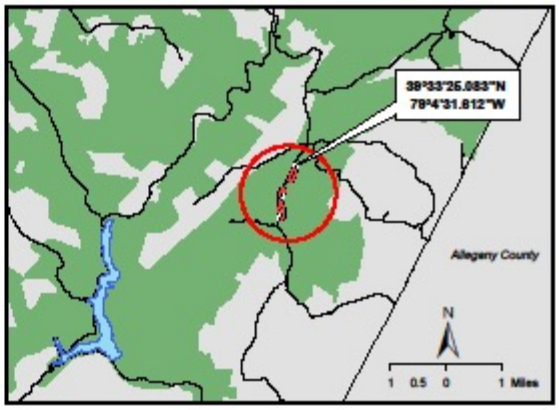
Silvicultural Prescription

This stand is a regenerating clearcut within an Old Growth Ecosystem Management Area. The overall goals of this OGEMA are to connect two Old Growth Areas and to become a future Old Growth Area. The objectives of the Crop Tree Release in these stands are to ensure that a diverse canopy develops that includes oak; to enhance vertical and horizontal diversity. Fifty to seventy-five crop trees should be released per acre. By doing this it will ensure that diverse, thrifty crop trees will be part of the new canopy. Releasing the crop trees with a 4 sided release will cause the crop trees to respond with rapid growth; thereby increasing the vertical diversity within the stand.


Savage River State Forest
Silvicultural Proposals FY 2016
Compartment 45 Crop Tree Release
Approximately 37 Acres
MARYLAND
MARYLAND
FOREST SERVICE
Pine Swamp Road
MOUNTAI
Westernport Road
Michaels Road
Run
2762
2800
2700
2500
N
Feet
0 415 830 1,660
Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary
38°33'25.083"N
79°4'31.812"W
Allegany County
N
1 0.5 0 1 Miles


Savage River State Forest
Silvicultural Proposals FY 2016
Compartment 45 Crop Tree Release
Approximately 37 Acres
MARYLAND
MARYLAND FOREST SERVICE
Pine Swamp Road
Michaels Road
Westernport Road
N
0
415
830
1,660
Feet


Wildlands
Environmentally Sensitive Area
Old Growth
Old Growth Ecosystem Area
Wetland of State Concern
Streams and 50' Buffer
SRSF Boundary


39°33'26.083"N
79°4'31.812"W
Allegany County
N
1
0.5
0
1 Miles

Review Process:

ID team comments from September, 2014 follow.

Citizen's Advisory Committee comments from September 2014.

Public Comments

G. Watershed Improvement Projects

Stream bank stabilization along Big Run Road is now being done in conjunction with the "chop and drop" project (below). Big Run is eroding into the bank and threatening Big Run Road in three places. We are working with Watershed Services, Freshwater Fisheries, Wildlife and Heritage Service and a private engineering firm to design and implement appropriate measures to reduce the erosion of the bank without causing problems down stream.

In conjunction with the Youghiogheny Chapter of Trout Unlimited, the Savage River Watershed Association, and students from Frostburg State University, efforts are being made to keep our streams clean from debris. The Savage River Watershed Association has also taken the lead in underplanting a number of hemlock stands with red spruce in the hopes of maintaining conifer cover over streams in the advent of serious hemlock woolly adelgid infestation and resulting mortality.

E. Ecosystem Restoration Projects

In fiscal year 2012, the Inland Fisheries Service and the staff at SRSF submitted a grant request to implement a "chop and drop" program where woody biomass is selectively added to Big Run to improve habitat for brook trout. This effort should be completed in FY 15 but may run into FY 16. If this effort is successful we will continue the program in other streams.

In the Fairview Wildlife Habitat unit there are a number of areas with exotic and invasive plants that will be controlled in conjunction with the Wildlife and Heritage Service, the Savage River Watershed Association, students from Frostburg State University and other volunteers. These activities will also be occurring prior to silvicultural activity unless they will be controlled during or after the silvicultural treatment.

Along Dry Run there was discovered an infestation of yellow archangel, an urban land cover that we have been working to eliminate from the forest. We expect to be successful because it is limited in size. Because of buried seed, however, it may take a few years of treatment.

Monitoring Projects

On going silvicultural timber operations will be monitored at least weekly and more often during adverse weather conditions.

Regeneration harvests will be monitored 5 and 10 years after harvest.

Ongoing research projects will likely continue in FY 2016.

Submitted Budget Request

The Budget for Savage River State Forest is $612,977. Of that amount, $335,645 goes to fund classified salaries and benefits for four employees, $124,115 goes to fund six contractual employees, and $37,500 to Garrett County in lieu of taxes payment, leaving $115,717 to conduct forest operations. Savage River has for many years generated revenue that greatly exceeded its cost of operation. The majority of revenue is obtained from the sale of forest products. Successful marketing by selling the mix of species and grades of wood products that the market most demanded contributed substantially to successful revenue generation over the years.

Operational Management

1. Introduction

This section of the plan is designed to cover the annual cost and revenues associated with the operational management of Savage River State Forest State Forest (SRSF). It is the Department's intent that all revenues generated from SRSF will be used to pay for the management and operation of the Forest. The numbers expressed in this section are only estimates and averages of annual expenses and revenues. These numbers will fluctuate each year based on management prescriptions, economic conditions and public use of the forest.

The following information is a breakdown of Revenues and Operational costs associated with SRSF. These figures are only estimates that are based on projected revenues and operational expenses. Yearly changes in timber markets and weather conditions can severely affect revenues. Operational expenses will vary from year to year and the numbers below are based on the budget request submitted for FY-2016

2. SRSF Funding Sources: Estimated - $612,977

State Forests in Maryland are funded from several sources. The first source is the revenue generated by the forests. These funds are deposited in the Department of Natural Resources' Forest or Park Reserve Fund and must be appropriated by the General Assembly through the annual budgeting process before being spent. The state forest budget is prepared approximately one year before the beginning of the fiscal year in which it will be spent. The budget then goes through the legislative approval/review process along with all other state operating budgets. Once adopted, the budget goes into effect the first day of the fiscal year (July 1st). Revenue generated by the state forest is designated special fund revenue. There may be special funds provided from the Department of Natural Resources' Forest or Park Reserve Fund that are not generated by this particular forest or there may be less special funds shown in the budget than was generated on this specific forest. The target for timber sale revenue in FY 16 is $150,000. It is estimated that revenue from recreation activities on the forest will be approximately $20,000.

The second source is included in the Maryland Forest Service's Off Road Vehicle (ORV) Budget. This separate budget is based on revenue generated from ORV permit sales statewide and is allocated back to the state forests through the budgeting process. ORV funds generated as permit sales at SRSF do not necessarily reflect funds allocated back to the SRSF operating budget. These

funds must be appropriated before being spent. ORV funds are a restricted special fund and can only be spent for ORV Trail related expenditures. The optimistic estimate for ORV funds in FY 16 is $6,000

3. Operational Cost: Estimated Annual Expenses - $612,977

Operational expenses are those costs paid directly out of the SRSF operational budget by the State Forest Manager. The Forest Manager prepares a proposed operational budget for the forest based on instructions provided by Department of Budget and Management approximately one year in advance of the fiscal year. The FY-2016 budget proposal will be prepared in August of 2014.

-Classified Salaries, Wages and Benefits: **$**124,115

This cost is associated with Special Funds which are state tax revenues provided annually. These funds are used to pay SRSF Maryland Classified Employee Salaries.

-Contractual Staffing: $124,115

This cost is associated with contractual staffing associated with operations of the state forest. Contractual personnel are responsible for conducting work outlined in the annual work plan, visitor services and administrative work, managing the daily activities on the forest, including boundary line work, maintenance of trails, forest roads, maintaining primitive campsites, a public shooting range, overlooks, wildlife habitat areas, and implementing all maintenance, recreational, silviculture, and ecosystem restoration projects.

- Land Operation Cost: $115,717

This includes expenses for office and field equipment, vehicles, gates, gravel, signs, boundary paint, roadwork contracts and construction, trash removal from illegal dumping, boundary line work & surveying, tree planting, site preparation, control of invasive species, non-commercial thinning and other forest management practices. These costs vary greatly from year to year based on the activities identified in the Annual Work Plan.

- County Payments: $37,500

These are revenue payments to local county governments which will vary every year. Payments are made on an annual basis to Garrett County based on 25% of the gross timber sale revenue generated from SRSF. These payments are used to help the counties offset the loss in property tax revenues which are not paid on state owned lands.

4. Summary

This is the general breakdown on Revenues and Operational Costs associated with the SRSF. As described, these figures will vary from year to year.

Total Revenue	$612,977
Total Expenditure	$612,977

Appendices

Appendix 1

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 7-6.sil)

SPECIES >	ALL SP	NS	BC	WP	AUP	RP	RM
		COMPOSITION -- BA, % OF BA, TREES					
TOT BA	220.0	100.0	45.0	30.0	20.0	15.0	10.0
SPECIES%	100.	45.	20.	14.	9.	7.	5.
# TREES	372.	113.	46.	82.	27.	33.	72.
		QUALITY -- % IN AGS					
SAPS	0.	0.	0.	0.	0.	0.	0.
POLES	80.	100.	100.	80.	0.	100.	0.
SM SAW	83.	100.	88.	100.	0.	0.	0.
MED SAW	100.	100.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	82.	100.	89.	83.	0.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	12.7	14.6	13.8	9.0	12.0	9.3	6.0
DIAM MER	12.9	14.6	13.8	9.0	12.0	9.3	8.0
QUAD DIA	10.4	12.8	13.4	8.2	11.7	9.2	5.1
YRS MAT	31.	23.	21.	60.	40.	58.	50.
EFCT AGE	79.	97.	69.	60.	80.	62.	40.
		STRUCTURE					
Q FACTOR	1.23	1.07	0.95	1.66	1.40	0.78	0.00
		RELATIVE DENSITY -- %					
REL DEN	130.	58.	18.	22.	12.	11.	9.
AGS RDEN	103.	58.	16.	18.	0.	11.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	65.1	31.6	14.9	7.4	6.0	4.0	1.2
NTOT CDS	47.3	25.3	11.9	5.9	0.0	3.2	1.0
PULP CDS	21.9	7.4	6.8	4.7	0.0	2.0	1.0
GRS BDFT	20373.	13445.	3241.	988.	1528.	1172.	0.
NET BDFT	14918.	11001.	2597.	677.	0.	643.	0.
DOLLARS	1109.	148.	937.	15.	0.	7.	2.

Appendix 2

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 7-7.sil)

SPECIES >	ALL SP	NS	NRO	SB	WP	RP
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	212.0	180.0	12.0	8.0	8.0	4.0
SPECIES%	100.	85.	6.	4.	4.	2.
# TREES	301.	221.	25.	41.	7.	7.
		QUALITY -- % IN AGS				
SAPS	100.	100.	0.	0.	0.	0.
POLES	60.	100.	0.	0.	0.	100.
SM SAW	97.	100.	0.	0.	50.	0.
MED SAW	100.	100.	100.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.
ALL SIZE	91.	100.	33.	0.	50.	100.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	13.5	14.1	11.3	6.0	14.0	10.0
DIAM MER	13.7	14.3	11.3	6.0	14.0	10.0
QUAD DIA	11.4	12.2	9.3	6.0	14.0	10.0
YRS MAT	28.	25.	33.	80.	27.	53.
EFCT AGE	90.	95.	57.	40.	93.	67.
		STRUCTURE				
Q FACTOR	1.16	1.08	1.59	0.00	0.00	0.00
		RELATIVE DENSITY -- %				
REL DEN	128.	105.	8.	7.	5.	3.
AGS RDEN	112.	105.	2.	0.	2.	3.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	65.1	57.0	3.4	1.0	2.6	1.1
NTOT CDS	52.1	45.6	2.7	0.8	2.1	0.9
PULP CDS	16.8	12.5	2.0	0.8	0.9	0.4
GRS BDFT	26879.	25147.	411.	0.	852.	469.
NET BDFT	21336.	20036.	380.	0.	663.	257.
DOLLARS	338.	191.	136.	2.	8.	2.

Appendix 3

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 7-44.sil)

SPECIES >	ALL SP	RM	BC	RP	NS	AUP	WA	SVB	WP
				COMPOSITION -- BA, % OF BA, TREES					
TOT BA	196.7	63.3	46.7	40.0	30.0	6.7	3.3	3.3	3.3
SPECIES%	100.	32.	24.	20.	15.	3.	2.	2.	2.
# TREES	479.	207.	42.	87.	76.	14.	6.	38.	10.
				QUALITY -- % IN AGS					
SAPS	50.	0.	0.	0.	100.	0.	0.	0.	0.
POLES	41.	13.	0.	75.	100.	0.	0.	0.	100.
SM SAW	85.	50.	92.	100.	100.	0.	0.	0.	0.
MED SAW	100.	0.	100.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	63.	21.	93.	83.	100.	0.	0.	0.	100.
				DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	10.7	8.5	14.7	9.8	11.3	10.0	10.0	4.0	8.0
DIAM MER	10.9	8.5	14.7	9.8	12.2	10.0	10.0	0.0	8.0
QUAD DIA	8.7	7.5	14.3	9.2	8.5	9.4	10.0	4.0	8.0
YRS MAT	40.	47.	16.	54.	38.	53.	40.	120.	67.
EFCT AGE	61.	43.	74.	66.	82.	67.	50.	0.	53.
				STRUCTURE					
Q FACTOR	1.77	2.15	1.51	1.02	1.36	1.50	0.00	0.00	0.00
				RELATIVE DENSITY -- %					
REL DEN	127.	48.	18.	28.	20.	5.	2.	4.	3.
AGS RDEN	71.	9.	17.	22.	20.	0.	0.	0.	3.
				VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	50.8	13.7	15.3	10.4	7.8	1.8	0.9	0.0	0.8
NTOT CDS	39.2	11.0	12.3	8.3	6.3	0.0	0.7	0.0	0.6
PULP CDS	26.1	9.6	6.8	5.3	3.0	0.0	0.7	0.0	0.6
GRS BDFT	10456.	1000.	3817.	2702.	2678.	259.	0.	0.	0.
NET BDFT	7288.	576.	3075.	1685.	1952.	0.	0.	0.	0.
DOLLARS	1261.	39.	1178.	19.	22.	0.	1.	0.	1.

Appendix 4

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-10.sil)

SPECIES >	ALL SP	NS	RM	BC	NRO	BO
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	204.0	84.0	56.0	44.0	16.0	4.0
SPECIES%	100.	41.	27.	22.	8.	2.
# TREES	1440.	815.	341.	49.	51.	183.
		QUALITY -- % IN AGS				
SAPS	75.	75.	100.	0.	0.	0.
POLES	83.	100.	33.	50.	100.	0.
SM SAW	77.	100.	80.	50.	0.	0.
MED SAW	17.	0.	0.	33.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.
ALL SIZE	73.	95.	57.	45.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	9.8	7.5	10.9	14.2	8.0	2.0
DIAM MER	11.1	8.7	12.9	14.2	8.0	0.0
QUAD DIA	5.1	4.3	5.5	12.8	7.6	2.0
YRS MAT	39.	62.	25.	19.	50.	120.
EFCT AGE	62.	58.	65.	71.	40.	0.
		STRUCTURE				
Q FACTOR	1.80	2.07	1.59	1.63	1.67	0.00
		RELATIVE DENSITY -- %				
REL DEN	147.	71.	41.	18.	12.	5.
AGS RDEN	113.	66.	27.	9.	12.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	45.3	14.8	12.9	14.0	3.5	0.0
NTOT CDS	36.2	11.9	10.3	11.2	2.8	0.0
PULP CDS	23.9	7.3	6.7	7.1	2.8	0.0
GRS BDFT	7903.	3775.	1736.	2392.	0.	0.
NET BDFT	5626.	2653.	938.	2035.	0.	0.
DOLLARS	950.	28.	30.	887.	6.	0.

Appendix 5

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-11.sil)

SPECIES >	ALL SP	RP	BC	NS	NRO	RM	WA
		COMPOSITION -- BA, % OF BA, TREES					
TOT BA	253.3	173.3	40.0	20.0	6.7	6.7	6.7
SPECIES%	100.	68.	16.	8.	3.	3.	3.
# TREES	355.	200.	45.	19.	76.	12.	2.
		QUALITY -- % IN AGS					
SAPS	100.	0.	0.	0.	100.	0.	0.
POLES	75.	100.	100.	0.	0.	0.	0.
SM SAW	93.	100.	0.	100.	0.	0.	0.
MED SAW	100.	0.	100.	0.	0.	0.	0.
LG SAW	100.	0.	0.	0.	0.	0.	100.
ALL SIZE	92.	100.	67.	100.	100.	0.	100.
		DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	13.1	12.8	14.0	14.0	4.0	10.0	26.0
DIAM MER	13.4	12.8	14.0	14.0	0.0	10.0	26.0
QUAD DIA	11.4	12.6	12.7	13.7	4.0	10.0	26.0
YRS MAT	29.	35.	20.	27.	90.	40.	0.
EFCT AGE	82.	85.	70.	93.	0.	50.	130.
		STRUCTURE					
Q FACTOR	1.68	0.42	1.34	1.33	0.00	0.00	0.00
		RELATIVE DENSITY -- %					
REL DEN	145.	104.	17.	11.	7.	4.	2.
AGS RDEN	135.	104.	11.	11.	7.	0.	2.
		VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	86.6	62.2	13.2	6.8	0.0	1.9	2.4
NTOT CDS	69.3	49.8	10.5	5.5	0.0	1.5	2.0
PULP CDS	10.9	1.2	7.0	0.6	0.0	1.5	0.6
GRS BDFT	42265.	35376.	2342.	3673.	0.	0.	875.
NET BDFT	31303.	25594.	2004.	2857.	0.	0.	848.
DOLLARS	1483.	130.	961.	15.	0.	3.	373.

Appendix 6

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-12.sil)

SPECIES >	ALL SP	NS	BC	RM	BL	SB
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	280.0	135.0	115.0	20.0	5.0	5.0
SPECIES%	100.	48.	41.	7.	2.	2.
# TREES	1341.	835.	235.	263.	6.	2.
		QUALITY -- % IN AGS				
SAPS	40.	67.	0.	0.	0.	0.
POLES	71.	100.	42.	0.	0.	0.
SM SAW	53.	100.	30.	0.	100.	0.
MED SAW	67.	100.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.
ALL SIZE	62.	96.	35.	0.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	10.1	9.1	11.0	8.0	12.0	22.0
DIAM MER	10.8	9.9	11.3	10.0	12.0	22.0
QUAD DIA	6.2	5.4	9.5	3.7	12.0	22.0
YRS MAT	41.	54.	34.	40.	40.	0.
EFCT AGE	62.	66.	56.	50.	80.	147.
		STRUCTURE				
Q FACTOR	1.85	1.87	1.86	1.83	0.00	0.00
		RELATIVE DENSITY -- %				
REL DEN	184.	104.	58.	17.	3.	2.
AGS RDEN	120.	98.	19.	0.	3.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	70.5	31.4	32.1	3.9	1.4	1.6
NTOT CDS	56.4	25.1	25.7	3.1	1.1	1.3
PULP CDS	35.6	12.3	19.1	2.8	0.8	0.7
GRS BDFT	16026.	10054.	4341.	339.	686.	606.
NET BDFT	11608.	7508.	3269.	216.	207.	408.
DOLLARS	1003.	63.	901.	19.	3.	17.

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Aug 25 2014 - 11-13.sil)

SPECIES >	ALL SP	SCP	BC	RP	STM
		COMPOSITION -- BA, % OF BA, TREES			
TOT BA	180.0	80.0	60.0	20.0	20.0
SPECIES%	100.	44.	33.	11.	11.
# TREES	731.	160.	495.	19.	57.
		QUALITY -- % IN AGS			
SAPS	50.	0.	50.	0.	0.
POLES	33.	0.	100.	0.	0.
SM SAW	25.	0.	0.	100.	0.
MED SAW	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.
ALL SIZE	33.	0.	67.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS			
DIAM	9.8	12.0	6.0	14.0	8.0
DIAM MER	11.4	12.0	10.0	14.0	8.0
QUAD DIA	6.7	9.6	4.7	14.0	8.0
YRS MAT	39.	40.	40.	27.	67.
EFCT AGE	69.	80.	50.	93.	53.
		STRUCTURE			
Q FACTOR	1.39	1.49	0.00	0.00	0.00
		RELATIVE DENSITY -- %			
REL DEN	137.	52.	54.	11.	20.
AGS RDEN	43.	0.	32.	11.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE			
GTOT CDS	38.6	21.8	5.7	6.4	4.7
NTOT CDS	9.6	0.0	4.6	5.1	0.0
PULP CDS	4.7	0.0	4.6	0.1	0.0
GRS BDFT	9584.	5476.	0.	4108.	0.
NET BDFT	3199.	0.	0.	3199.	0.
DOLLARS	25.	0.	9.	16.	0.

Appendix 8

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-21.sil)

SPECIES >	ALL SP	CO	RM	NRO	BC	BG	AB	SB	WO	CUC
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	152.7	66.4	36.4	27.3	5.5	5.5	5.5	3.6	1.8	0.9
SPECIES%	100.	43.	24.	18.	4.	4.	4.	2.	1.	1.
# TREES	356.	42.	73.	133.	18.	6.	16.	56.	1.	10.
					QUALITY -- % IN AGS					
SAPS	80.	0.	100.	80.	100.	0.	0.	0.	0.	100.
POLES	63.	50.	67.	100.	100.	50.	40.	33.	0.	0.
SM SAW	80.	85.	77.	100.	100.	33.	100.	0.	0.	0.
MED SAW	93.	98.	67.	92.	100.	0.	0.	0.	100.	0.
LG SAW	100.	100.	100.	100.	0.	0.	0.	0.	0.	0.
ALL SIZE	83.	92.	75.	93.	100.	33.	50.	25.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	15.4	18.0	12.8	16.7	10.7	13.7	8.7	5.0	19.0	4.0
DIAM MER	16.2	18.0	13.3	19.4	12.0	13.7	8.7	6.0	19.0	0.0
QUAD DIA	8.9	17.0	9.6	6.1	7.5	12.5	7.8	3.5	18.9	4.0
YRS MAT	11.	0.	24.	0.	30.	29.	62.	80.	0.	90.
EFCT AGE	93.	120.	66.	97.	60.	91.	58.	40.	127.	0.
					STRUCTURE					
Q FACTOR	1.28	1.02	1.37	1.15	1.50	2.88	1.82	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	120.	62.	23.	17.	3.	3.	5.	4.	2.	1.
AGS RDEN	100.	56.	17.	16.	3.	1.	3.	1.	2.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	46.4	22.8	10.5	7.7	1.4	1.7	1.2	0.4	0.6	0.0
NTOT CDS	37.1	18.3	8.4	6.2	1.1	1.4	0.9	0.3	0.5	0.0
PULP CDS	17.5	6.9	5.0	2.5	0.9	0.9	0.9	0.3	0.1	0.0
GRS BDFT	12998.	7297.	2602.	2270.	175.	289.	125.	0.	241.	0.
NET BDFT	11115.	6522.	1803.	2139.	147.	250.	38.	0.	217.	0.
DOLLARS	1314.	211.	130.	826.	63.	5.	2.	1.	76.	0.

Appendix 9

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-30.sil)

SPECIES >	ALL SP	AB	CUC	SB	BC	NRO	RM	YB	SM	AMC	YP
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	153.3	35.0	33.3	31.7	28.3	8.3	6.7	3.3	3.3	1.7	1.7
SPECIES%	100.	23.	22.	21.	18.	5.	4.	2.	2.	1.	1.
# TREES	1293.	373.	232.	393.	180.	15.	66.	22.	6.	2.	5.
					QUALITY -- % IN AGS						
SAPS	46.	33.	33.	64.	50.	0.	0.	100.	0.	0.	0.
POLES	85.	50.	100.	75.	85.	100.	100.	0.	100.	0.	100.
SM SAW	80.	89.	100.	0.	100.	0.	0.	0.	0.	0.	0.
MED SAW	100.	100.	0.	0.	0.	100.	0.	0.	0.	0.	0.
LG SAW	100.	0.	0.	0.	0.	100.	0.	0.	0.	0.	0.
ALL SIZE	74.	67.	90.	68.	82.	100.	25.	50.	50.	0.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	7.9	10.4	6.7	4.6	7.3	16.8	4.5	7.0	12.0	14.0	8.0
DIAM MER	9.7	13.5	7.3	6.0	7.9	16.8	6.0	10.0	12.0	14.0	8.0
QUAD DIA	4.7	4.1	5.1	3.8	5.4	10.1	4.3	5.3	10.1	14.0	8.0
YRS MAT	47.	30.	54.	80.	51.	6.	60.	53.	40.	27.	50.
EFCT AGE	55.	90.	36.	40.	39.	84.	30.	67.	80.	93.	40.
					STRUCTURE						
Q FACTOR	1.76	1.60	2.53	0.00	2.26	1.24	0.00	0.00	1.41	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	138.	36.	29.	32.	21.	5.	7.	3.	3.	1.	1.
AGS RDEN	96.	23.	25.	21.	15.	5.	1.	2.	2.	0.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	22.9	6.3	4.9	1.6	5.3	2.4	0.2	0.4	0.9	0.5	0.4
NTOT CDS	17.9	5.1	3.9	1.2	4.2	1.9	0.2	0.3	0.7	0.0	0.3
PULP CDS	13.3	2.1	3.7	1.2	3.9	0.9	0.2	0.3	0.5	0.0	0.3
GRS BDFT	4624.	3589.	172.	0.	101.	608.	0.	0.	0.	154.	0.
NET BDFT	2404.	1615.	138.	0.	69.	581.	0.	0.	0.	0.	0.
DOLLARS	314.	35.	8.	2.	21.	245.	0.	1.	1.	0.	1.

Appendix 10

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-43.sil)

SPECIES >	ALL SP	WP	BC	SM	BL	SB	SCP	RM
		COMPOSITION -- BA, % OF BA, TREES						
TOT BA	215.6	171.1	24.4	6.7	6.7	2.2	2.2	2.2
SPECIES%	100.	79.	11.	3.	3.	1.	1.	1.
# TREES	361.	239.	61.	21.	7.	25.	4.	3.
		QUALITY -- % IN AGS						
SAPS	0.	0.	0.	0.	0.	0.	0.	0.
POLES	78.	78.	83.	100.	0.	0.	0.	0.
SM SAW	89.	93.	0.	100.	67.	0.	0.	100.
MED SAW	60.	100.	33.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	84.	90.	55.	100.	67.	0.	0.	100.
		DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	12.0	12.2	11.5	8.7	13.3	4.0	10.0	12.0
DIAM MER	12.0	12.2	11.5	8.7	13.3	0.0	10.0	12.0
QUAD DIA	10.5	11.4	8.5	7.7	13.0	4.0	10.0	12.0
YRS MAT	38.	38.	33.	62.	31.	120.	53.	30.
EFCT AGE	77.	82.	57.	58.	89.	0.	67.	60.
		STRUCTURE						
Q FACTOR	1.50	1.61	1.63	1.57	1.89	0.00	0.00	0.00
		RELATIVE DENSITY -- %						
REL DEN	135.	106.	13.	7.	4.	2.	1.	1.
AGS RDEN	112.	93.	8.	7.	3.	0.	0.	1.
		VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	63.4	52.0	6.6	1.5	2.0	0.0	0.6	0.7
NTOT CDS	50.2	41.6	5.3	1.2	1.6	0.0	0.0	0.5
PULP CDS	16.4	10.5	4.1	0.9	0.7	0.0	0.0	0.3
GRS BDFT	26568.	23991.	826.	282.	1058.	0.	129.	282.
NET BDFT	18466.	17022.	718.	143.	441.	0.	0.	143.
DOLLARS	490.	119.	360.	4.	4.	0.	0.	3.

Appendix 11

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-47.sil)

SPECIES >	ALL SP	SM	WP	RM	BC	BL	SCP	CUC	WA	WO	SB
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	150.0	77.1	27.1	17.1	12.9	5.7	4.3	1.4	1.4	1.4	1.4
SPECIES%	100.	51.	18.	11.	9.	4.	3.	1.	1.	1.	1.
# TREES	641.	375.	56.	68.	28.	27.	12.	7.	65.	0.	2.
					QUALITY -- % IN AGS						
SAPS	50.	40.	0.	0.	0.	100.	0.	0.	100.	0.	0.
POLES	72.	85.	50.	86.	50.	0.	0.	100.	0.	0.	0.
SM SAW	92.	100.	100.	100.	100.	0.	0.	0.	0.	0.	100.
MED SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	67.	50.	0.	0.	0.	0.	0.	0.	0.	100.	0.
ALL SIZE	75.	81.	68.	83.	78.	25.	0.	100.	100.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	9.8	9.2	10.6	9.2	11.3	9.0	8.0	6.0	2.0	36.0	12.0
DIAM MER	10.3	9.8	10.6	9.6	11.3	10.7	8.0	6.0	0.0	36.0	12.0
QUAD DIA	6.6	6.1	9.4	6.8	9.2	6.3	8.0	6.0	2.0	36.0	12.0
YRS MAT	48.	55.	49.	42.	33.	49.	67.	60.	90.	0.	40.
EFCT AGE	64.	65.	71.	48.	57.	71.	53.	30.	0.	240.	80.
					STRUCTURE						
Q FACTOR	1.92	2.52	1.56	1.69	1.39	1.54	0.00	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	130.	77.	18.	13.	7.	4.	3.	1.	3.	1.	1.
AGS RDEN	97.	62.	12.	10.	4.	2.	0.	1.	3.	1.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	33.2	15.8	7.3	3.5	3.5	1.0	1.0	0.2	0.0	0.5	0.4
NTOT CDS	25.8	12.7	5.8	2.8	2.8	0.8	0.0	0.2	0.0	0.4	0.3
PULP CDS	18.0	10.8	2.8	1.8	1.5	0.5	0.0	0.2	0.0	0.2	0.2
GRS BDFT	6275.	1595.	2398.	756.	881.	425.	0.	0.	0.	0.	220.
NET BDFT	4155.	1062.	1651.	519.	701.	155.	0.	0.	0.	0.	66.
DOLLARS	408.	106.	16.	35.	247.	2.	0.	0.	0.	0.	1.

Appendix 12

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-67.sil)

SPECIES >	ALL SP	CO	RM	NRO	SB	BC	BW	WO	BG	SVB
				COMPOSITION -- BA, % OF BA, TREES						
TOT BA	155.8	50.8	45.0	42.5	11.7	2.5	0.8	0.8	0.8	0.8
SPECIES%	100.	33.	29.	27.	7.	2.	1.	1.	1.	1.
# TREES	418.	39.	143.	64.	122.	39.	1.	0.	4.	4.
				QUALITY -- % IN AGS						
SAPS	40.	0.	50.	100.	25.	0.	0.	0.	0.	0.
POLES	74.	75.	71.	50.	100.	0.	0.	0.	0.	0.
SM SAW	83.	76.	93.	92.	0.	0.	0.	0.	0.	0.
MED SAW	95.	95.	100.	93.	0.	100.	0.	0.	0.	0.
LG SAW	88.	64.	0.	100.	0.	0.	0.	100.	0.	0.
ALL SIZE	81.	80.	76.	94.	79.	67.	0.	100.	0.	0.
				DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	15.0	17.7	9.5	20.1	6.7	13.3	12.0	28.0	6.0	6.0
DIAM MER	15.7	17.7	9.9	20.5	8.2	19.0	12.0	28.0	6.0	6.0
QUAD DIA	8.3	15.5	7.6	11.0	4.2	3.4	12.0	28.0	6.0	6.0
YRS MAT	13.	2.	40.	0.	65.	0.	40.	0.	80.	80.
EFCT AGE	88.	118.	50.	102.	55.	95.	80.	187.	40.	40.
				STRUCTURE						
Q FACTOR	1.41	1.09	1.90	1.15	1.49	0.00	0.00	0.00	0.00	0.00
				RELATIVE DENSITY -- %						
REL DEN	118.	47.	33.	22.	10.	2.	1.	1.	1.	1.
AGS RDEN	92.	38.	24.	21.	7.	1.	0.	1.	0.	0.
				VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	44.9	16.8	10.8	14.2	1.7	0.6	0.2	0.3	0.1	0.1
NTOT CDS	35.9	13.5	8.7	11.3	1.3	0.5	0.2	0.2	0.1	0.0
PULP CDS	17.5	5.1	6.9	3.8	1.3	0.1	0.1	0.1	0.1	0.0
GRS BDFT	11821.	5170.	1484.	4719.	0.	216.	119.	114.	0.	0.
NET BDFT	10332.	4607.	928.	4431.	0.	199.	60.	107.	0.	0.
DOLLARS	2078.	144.	59.	1710.	3.	106.	0.	54.	0.	0.

Appendix 13

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Mar 13 2014 - 11-70.sil)

SPECIES >	ALL SP	CO	RM	NRO	BG	SB	SO	AB	WO	EH
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	165.0	76.7	36.7	20.0	15.0	6.7	3.3	3.3	1.7	1.7
SPECIES%	100.	46.	22.	12.	9.	4.	2.	2.	1.	1.
# TREES	517.	65.	150.	12.	246.	10.	3.	28.	1.	2.
					QUALITY -- % IN AGS					
SAPS	30.	0.	67.	0.	0.	0.	0.	100.	0.	0.
POLES	50.	40.	53.	0.	0.	100.	0.	100.	0.	0.
SM SAW	79.	73.	100.	75.	0.	100.	0.	0.	100.	100.
MED SAW	81.	77.	0.	100.	0.	0.	100.	0.	0.	0.
LG SAW	100.	100.	0.	100.	0.	0.	0.	0.	0.	0.
ALL SIZE	70.	76.	64.	92.	0.	100.	50.	100.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	14.3	18.2	8.3	20.0	4.9	11.0	15.0	5.0	16.0	12.0
DIAM MER	15.5	18.2	8.9	20.0	8.0	11.0	15.0	6.0	16.0	12.0
QUAD DIA	7.6	14.7	6.7	17.5	3.3	10.9	14.1	4.7	16.0	12.0
YRS MAT	15.	0.	45.	0.	67.	47.	20.	80.	13.	40.
EFCT AGE	93.	121.	45.	100.	53.	73.	100.	40.	107.	80.
					STRUCTURE					
Q FACTOR	1.40	1.19	2.03	1.15	1.67	1.44	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	139.	71.	29.	10.	15.	4.	3.	4.	2.	1.
AGS RDEN	93.	54.	18.	9.	0.	4.	2.	4.	2.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	45.7	25.8	7.8	7.0	1.2	1.8	1.1	0.2	0.6	0.4
NTOT CDS	36.6	20.6	6.2	5.6	0.9	1.4	0.9	0.2	0.5	0.3
PULP CDS	18.1	8.3	5.3	1.8	0.9	1.0	0.4	0.2	0.1	0.1
GRS BDFT	12341.	7665.	889.	2319.	0.	795.	297.	0.	218.	157.
NET BDFT	10395.	6919.	512.	2161.	0.	240.	266.	0.	190.	107.
DOLLARS	1148.	258.	30.	794.	2.	3.	4.	0.	56.	1.

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-2.sil)

SPECIES >	ALL SP	WP	BC	RM	NS
		COMPOSITION -- BA, % OF BA, TREES			
TOT BA	280.0	120.0	80.0	40.0	40.0
SPECIES%	100.	43.	29.	14.	14.
# TREES	1014.	543.	156.	286.	29.
		QUALITY -- % IN AGS			
SAPS	100.	100.	0.	100.	0.
POLES	56.	80.	0.	100.	0.
SM SAW	100.	0.	100.	0.	100.
MED SAW	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.
ALL SIZE	71.	83.	25.	100.	100.
		DIAMETERS AND AGES -- INCHES, YEARS			
DIAM	9.3	7.7	10.0	6.0	16.0
DIAM MER	10.2	8.4	10.0	8.0	16.0
QUAD DIA	7.1	6.4	9.7	5.1	16.0
YRS MAT	46.	64.	40.	50.	13.
EFCT AGE	59.	56.	50.	40.	107.
		STRUCTURE			
Q FACTOR	1.55	1.36	1.50	0.00	0.00
		RELATIVE DENSITY -- %			
REL DEN	197.	97.	41.	37.	22.
AGS RDEN	147.	80.	9.	37.	22.
		VOLUMES AND VALUES - INT 1/4" LOG RULE			
GTOT CDS	61.5	21.9	21.9	4.6	13.0
NTOT CDS	49.2	17.5	17.5	3.7	10.4
PULP CDS	32.3	10.4	16.1	3.7	2.1
GRS BDFT	14252.	7029.	1214.	0.	6008.
NET BDFT	9797.	3856.	829.	0.	5112.
DOLLARS	298.	40.	187.	7.	64.

Appendix 15

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-6.sil)

SPECIES >	ALL SP	WP	BC	RM	SB	BL	BG	RP	WO	P
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	169.4	84.7	55.3	20.0	2.4	2.4	1.2	1.2	1.2	1.2
SPECIES%	100.	50.	33.	12.	1.	1.	1.	1.	1.	1.
# TREES	877.	123.	487.	234.	19.	4.	1.	1.	1.	6.
					QUALITY -- % IN AGS					
SAPS	64.	0.	71.	43.	100.	0.	0.	0.	0.	0.
POLES	67.	71.	60.	0.	100.	100.	0.	0.	0.	100.
SM SAW	81.	91.	53.	75.	0.	0.	0.	100.	100.	0.
MED SAW	25.	100.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	70.	86.	55.	35.	100.	100.	0.	100.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	11.2	12.5	9.6	10.7	5.0	10.0	14.0	14.0	14.0	6.0
DIAM MER	12.8	12.5	13.1	16.0	6.0	10.0	14.0	14.0	14.0	6.0
QUAD DIA	6.0	11.2	4.6	4.0	4.7	10.0	14.0	14.0	14.0	6.0
YRS MAT	30.	37.	24.	10.	80.	53.	27.	27.	27.	80.
EFCT AGE	74.	83.	66.	80.	40.	67.	93.	93.	93.	40.
					STRUCTURE					
Q FACTOR	1.67	1.40	1.41	1.57	0.00	0.00	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	121.	53.	44.	16.	2.	2.	1.	1.	1.	1.
AGS RDEN	84.	44.	27.	6.	2.	2.	0.	1.	1.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	41.3	25.3	10.4	3.5	0.1	0.6	0.4	0.4	0.4	0.2
NTOT CDS	33.1	20.2	8.3	2.8	0.1	0.5	0.3	0.3	0.3	0.1
PULP CDS	18.1	9.6	5.6	1.8	0.1	0.5	0.2	0.1	0.1	0.1
GRS BDFT	10448.	8113.	1189.	784.	0.	0.	94.	143.	125.	0.
NET BDFT	7965.	6102.	970.	597.	0.	0.	79.	111.	105.	0.
DOLLARS	522.	72.	360.	59.	0.	1.	1.	1.	27.	0.

Appendix 16

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-10.sil)

SPECIES >	ALL SP	WP	RP	RM	CO	SB	BC
		COMPOSITION -- BA, % OF BA, TREES					
TOT BA	180.0	106.7	33.3	20.0	6.7	6.7	6.7
SPECIES%	100.	59.	19.	11.	4.	4.	4.
# TREES	1300.	125.	29.	229.	306.	306.	306.
		QUALITY -- % IN AGS					
SAPS	67.	0.	0.	67.	100.	0.	100.
POLES	100.	100.	0.	0.	0.	0.	0.
SM SAW	94.	92.	100.	0.	0.	0.	0.
MED SAW	100.	100.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	89.	94.	100.	67.	100.	0.	100.
		DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	11.3	13.4	14.8	4.0	2.0	2.0	2.0
DIAM MER	13.7	13.4	14.8	0.0	0.0	0.0	0.0
QUAD DIA	5.0	12.5	14.5	4.0	2.0	2.0	2.0
YRS MAT	27.	31.	21.	90.	120.	120.	90.
EFCT AGE	87.	89.	99.	0.	0.	0.	0.
		STRUCTURE					
Q FACTOR	1.24	1.30	0.77	0.00	0.00	0.00	0.00
		RELATIVE DENSITY -- %					
REL DEN	135.	63.	19.	22.	9.	8.	14.
AGS RDEN	115.	59.	19.	14.	9.	0.	14.
		VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	44.5	33.5	10.9	0.0	0.0	0.0	0.0
NTOT CDS	35.6	26.8	8.7	0.0	0.0	0.0	0.0
PULP CDS	14.0	11.3	2.7	0.0	0.0	0.0	0.0
GRS BDFT	15996.	11664.	4332.	0.	0.	0.	0.
NET BDFT	12453.	8948.	3505.	0.	0.	0.	0.
DOLLARS	151.	111.	40.	0.	0.	0.	0.

Appendix 17

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-23.sil)

SPECIES >	ALL SP	WP	RM	BC	WA	SB	BL	PC
		COMPOSITION -- BA, % OF BA, TREES						
TOT BA	180.0	141.8	12.7	10.9	5.5	5.5	1.8	1.8
SPECIES%	100.	79.	7.	6.	3.	3.	1.	1.
# TREES	879.	165.	121.	200.	188.	188.	9.	9.
		QUALITY -- % IN AGS						
SAPS	50.	0.	0.	67.	100.	0.	0.	0.
POLES	68.	71.	80.	100.	0.	0.	0.	0.
SM SAW	92.	93.	0.	50.	0.	0.	0.	0.
MED SAW	86.	100.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	82.	90.	57.	67.	100.	0.	0.	0.
		DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	11.9	13.5	8.0	7.0	2.7	2.7	6.0	6.0
DIAM MER	12.9	13.5	9.0	11.3	0.0	0.0	6.0	6.0
QUAD DIA	6.1	12.6	4.4	3.2	2.3	2.3	6.0	6.0
YRS MAT	32.	30.	45.	33.	90.	120.	80.	80.
EFCT AGE	82.	90.	45.	57.	0.	0.	40.	40.
		STRUCTURE						
Q FACTOR	1.29	1.30	1.60	1.49	0.00	0.00	0.00	0.00
		RELATIVE DENSITY -- %						
REL DEN	127.	84.	11.	13.	10.	7.	2.	2.
AGS RDEN	98.	75.	6.	8.	10.	0.	0.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	48.4	44.5	1.8	1.5	0.0	0.0	0.3	0.3
NTOT CDS	38.5	35.6	1.4	1.2	0.0	0.0	0.2	0.0
PULP CDS	13.3	10.9	1.4	0.7	0.0	0.0	0.2	0.0
GRS BDFT	18314.	18143.	0.	171.	0.	0.	0.	0.
NET BDFT	14118.	14001.	0.	117.	0.	0.	0.	0.
DOLLARS	158.	132.	3.	23.	0.	0.	0.	0.

Appendix 18

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-29.sil)

SPECIES >	ALL SP	RP	WP	BC	RM	SM
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	206.7	93.3	73.3	23.3	13.3	3.3
SPECIES%	100.	45.	35.	11.	6.	2.
# TREES	441.	99.	74.	35.	230.	2.
		QUALITY -- % IN AGS				
SAPS	67.	0.	0.	0.	67.	0.
POLES	83.	100.	100.	50.	0.	0.
SM SAW	98.	96.	100.	100.	0.	0.
MED SAW	67.	0.	100.	100.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.
ALL SIZE	92.	96.	100.	86.	50.	0.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	13.5	13.5	14.3	12.9	8.0	20.0
DIAM MER	14.0	13.5	14.3	12.9	22.0	20.0
QUAD DIA	9.3	13.1	13.4	11.0	3.3	20.0
YRS MAT	25.	30.	25.	26.	0.	0.
EFCT AGE	88.	90.	95.	64.	110.	133.
		STRUCTURE				
Q FACTOR	1.56	0.95	0.99	1.47	0.00	0.00
		RELATIVE DENSITY -- %				
REL DEN	123.	55.	42.	11.	13.	3.
AGS RDEN	111.	53.	42.	9.	8.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	63.5	29.9	23.9	7.3	1.2	1.1
NTOT CDS	50.8	23.9	19.2	5.9	1.0	0.9
PULP CDS	9.3	2.4	2.9	3.3	0.5	0.2
GRS BDFT	29329.	15612.	11442.	1810.	0.	464.
NET BDFT	22805.	11818.	9154.	1431.	0.	402.
DOLLARS	677.	68.	66.	497.	1.	45.

Appendix 19

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-36.sil)

SPECIES >	ALL SP	NS	SB
		COMPOSITION -- BA, % OF BA, TREES	
TOT BA	230.0	220.0	10.0
SPECIES%	100.	96.	4.
# TREES	226.	112.	115.
		QUALITY -- % IN AGS	
SAPS	0.	0.	0.
POLES	0.	0.	0.
SM SAW	100.	100.	0.
MED SAW	100.	100.	0.
LG SAW	0.	0.	0.
ALL SIZE	96.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS	
DIAM	18.7	19.4	4.0
DIAM MER	19.4	19.4	0.0
QUAD DIA	13.6	19.0	4.0
YRS MAT	0.	0.	120.
EFCT AGE	129.	129.	0.
		STRUCTURE	
Q FACTOR	0.80	0.80	0.00
		RELATIVE DENSITY -- %	
REL DEN	120.	110.	11.
AGS RDEN	110.	110.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE	
GTOT CDS	79.3	79.3	0.0
NTOT CDS	63.4	63.4	0.0
PULP CDS	4.0	4.0	0.0
GRS BDFT	40769.	40769.	0.
NET BDFT	38186.	38186.	0.
DOLLARS	712.	712.	0.

Appendix 20

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 14-52.sil)

SPECIES >	ALL SP	NS	NRO	BC	RM	SB	WA	BS	BL
				COMPOSITION -- BA, % OF BA, TREES					
TOT BA	190.0	104.0	32.0	22.0	12.0	8.0	8.0	2.0	2.0
SPECIES%	100.	55.	17.	12.	6.	4.	4.	1.	1.
# TREES	991.	117.	33.	671.	12.	49.	5.	10.	92.
				QUALITY -- % IN AGS					
SAPS	90.	0.	0.	100.	0.	0.	0.	0.	100.
POLES	93.	100.	100.	100.	0.	100.	0.	0.	0.
SM SAW	84.	92.	100.	100.	50.	0.	0.	0.	0.
MED SAW	75.	88.	50.	100.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	84.	92.	88.	100.	50.	75.	0.	0.	100.
				DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	12.8	14.2	15.1	5.5	13.7	6.0	16.5	6.0	2.0
DIAM MER	14.1	14.2	15.1	14.0	13.7	6.7	16.5	6.0	0.0
QUAD DIA	5.9	12.7	13.3	2.5	13.5	5.5	16.4	6.0	2.0
YRS MAT	23.	25.	14.	20.	22.	76.	7.	80.	120.
EFCT AGE	83.	95.	76.	70.	68.	44.	83.	40.	0.
				STRUCTURE					
Q FACTOR	1.31	1.18	1.38	1.34	1.89	3.56	3.80	0.00	0.00
				RELATIVE DENSITY -- %					
REL DEN	135.	61.	18.	35.	7.	7.	3.	2.	3.
AGS RDEN	118.	56.	17.	35.	3.	5.	0.	0.	3.
				VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	53.1	33.0	10.3	2.0	3.8	0.9	2.7	0.3	0.0
NTOT CDS	42.4	26.4	8.2	1.6	3.1	0.8	2.2	0.2	0.0
PULP CDS	14.8	5.6	4.5	1.0	1.7	0.8	1.0	0.2	0.0
GRS BDFT	19515.	15276.	2138.	381.	986.	0.	734.	0.	0.
NET BDFT	15782.	12255.	1919.	324.	632.	0.	652.	0.	0.
DOLLARS	1077.	108.	583.	142.	42.	2.	200.	0.	0.

Appendix 21

OVERSTORY SUMMARY ORIGINAL STAND (2011) - LIVE TREES ONLY

(Mar 13 2014 - 15-34.sil)

SPECIES >	ALL SP	NRO	RM	WO	CO	SB	BC	SAS	AB	WA
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	172.1	92.9	47.9	15.7	8.6	3.6	1.4	0.7	0.7	0.7
SPECIES%	100.	54.	28.	9.	5.	2.	1.	0.	0.	0.
# TREES	569.	93.	413.	14.	17.	17.	2.	8.	4.	2.
					QUALITY -- % IN AGS					
SAPS	37.	0.	41.	0.	0.	0.	0.	0.	0.	0.
POLES	83.	76.	82.	50.	100.	100.	0.	0.	100.	100.
SM SAW	88.	89.	89.	71.	100.	0.	100.	0.	0.	0.
MED SAW	80.	84.	50.	75.	67.	0.	0.	0.	0.	0.
LG SAW	100.	100.	0.	100.	0.	0.	0.	0.	0.	0.
ALL SIZE	82.	88.	72.	77.	92.	80.	100.	0.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	13.4	16.3	7.2	18.5	12.7	7.2	12.0	4.0	6.0	8.0
DIAM MER	14.3	16.3	8.5	18.5	12.7	8.0	12.0	0.0	6.0	8.0
QUAD DIA	7.4	13.5	4.6	14.5	9.8	6.2	12.0	4.0	6.0	8.0
YRS MAT	19.	8.	48.	0.	36.	67.	30.	120.	80.	50.
EFCT AGE	75.	82.	42.	124.	84.	53.	60.	0.	40.	40.
					STRUCTURE					
Q FACTOR	1.47	1.25	2.49	1.12	1.42	1.67	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	122.	52.	42.	15.	8.	3.	1.	1.	1.	0.
AGS RDEN	96.	45.	28.	11.	8.	2.	1.	0.	1.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	46.5	29.9	7.7	5.2	2.4	0.6	0.4	0.0	0.1	0.2
NTOT CDS	37.2	23.9	6.1	4.2	1.9	0.5	0.4	0.0	0.1	0.1
PULP CDS	18.1	9.3	5.0	1.7	1.2	0.5	0.2	0.0	0.1	0.1
GRS BDFT	12114.	9053.	988.	1488.	450.	0.	135.	0.	0.	0.
NET BDFT	10766.	8306.	622.	1350.	396.	0.	92.	0.	0.	0.
DOLLARS	3331.	2749.	41.	510.	13.	1.	17.	0.	0.	0.

Appendix 22

OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Aug 25 2014 - 11-48.sil)

SPECIES >	ALL SP	WP	RP	SM	BC	RM	SCP	NS
				COMPOSITION -- BA, % OF BA, TREES				
TOT BA	225.0	65.0	65.0	45.0	25.0	10.0	10.0	5.0
SPECIES%	100.	29.	29.	20.	11.	4.	4.	2.
# TREES	405.	95.	91.	152.	21.	14.	23.	9.
				QUALITY -- % IN AGS				
SAPS	100.	0.	0.	100.	0.	0.	0.	0.
POLES	88.	100.	100.	100.	0.	100.	0.	100.
SM SAW	100.	100.	100.	100.	100.	100.	0.	0.
MED SAW	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	93.	100.	92.	100.	100.	100.	0.	100.
				DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	11.7	11.8	12.8	8.9	14.8	12.0	9.0	10.0
DIAM MER	11.9	11.8	12.8	9.5	14.8	12.0	9.0	10.0
QUAD DIA	10.1	11.2	11.5	7.4	14.7	11.5	8.8	10.0
YRS MAT	39.	41.	35.	57.	16.	30.	60.	53.
EFCT AGE	75.	79.	85.	63.	74.	60.	60.	67.
				STRUCTURE				
Q FACTOR	1.48	0.99	1.68	1.24	1.96	1.40	1.56	0.00
				RELATIVE DENSITY -- %				
REL DEN	152.	41.	40.	45.	10.	6.	7.	3.
AGS RDEN	142.	41.	37.	45.	10.	6.	0.	3.
				VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	64.3	19.3	19.6	9.9	8.5	3.0	2.6	1.4
NTOT CDS	49.4	15.5	15.7	7.9	6.8	2.4	0.0	1.1
PULP CDS	26.1	7.6	7.3	6.9	2.2	1.6	0.0	0.5
GRS BDFT	21620.	7379.	7284.	1301.	3804.	876.	290.	688.
NET BDFT	15597.	5257.	5667.	658.	3081.	556.	0.	377.
DOLLARS	1293.	43.	64.	26.	1124.	32.	0.	3.

Appendix 23

OVERSTORY SUMMARY ORIGINAL STAND (2014) - LIVE TREES ONLY Compartment 45 OGEMA Crop Tree Release

(Aug 20 2014 - AWP 16.sil)

SPECIES >	ALL SP	SB	RM	BC	CO	NRO	CUC	BL	SO	WHL	H
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	56.7	18.3	8.3	7.5	7.5	5.0	2.5	2.5	1.7	0.8	0.8
SPECIES%	100.	32.	15.	13.	13.	9.	4.	4.	3.	1.	1.
# TREES	1998.	749.	267.	164.	286.	159.	86.	115.	76.	38.	10.
					QUALITY -- % IN AGS						
SAPS	36.	0.	0.	62.	89.	100.	100.	0.	100.	0.	100.
POLES	25.	0.	0.	0.	0.	50.	0.	0.	0.	0.	0.
SM SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MED SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	35.	0.	0.	56.	89.	83.	100.	0.	100.	0.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	2.8	2.4	2.8	4.0	2.4	4.0	2.7	2.0	2.0	2.0	4.0
DIAM MER	8.0	6.0	0.0	10.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0
QUAD DIA	2.3	2.1	2.4	2.9	2.2	2.4	2.3	2.0	2.0	2.0	4.0
YRS MAT	59.	80.	90.	40.	120.	50.	90.	120.	120.	120.	120.
EFCT AGE	47.	40.	0.	50.	0.	40.	0.	0.	0.	0.	0.
					STRUCTURE						
Q FACTOR	1.67	0.00	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	70.	22.	10.	10.	9.	5.	3.	3.	2.	1.	1.
AGS RDEN	26.	0.	0.	6.	8.	5.	3.	0.	2.	0.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	0.6	0.1	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
NTOT CDS	0.5	0.1	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
PULP CDS	0.5	0.1	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0
GRS BDFT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET BDFT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DOLLARS	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.

OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2014) - LIVE TREES ONLY

(Aug 20 2014 - AWP 16.sil)

SPECIES >	ALL SP	SAS	AMC
		COMPOSITION -- BA, % OF BA, TREES	
TOT BA	56.7	0.8	0.8
SPECIES%	100.	1.	1.
# TREES	1998.	38.	10.

The following summary compares the work scheduled in each annual work plan against the amount of work implemented/completed in the field. Annual Works Plans (AWPs) are developed 18 months in advance of any work being implemented in the field to allow time for an internal departmental and public review process(as of 8/22/14).

Silvicultural Activity Summary By Annual Work Plan

	2002		2003		2004		2005		2006		2007		2008		2009		2010	
Workplan Activity	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp
Regeneration Harvests	150	125	65	25	175	175	45	25	65	0	140	72	150	96			50	0
Various Thinning Harvests	355	355	450	221	485	383	250	250	615	218	120	71	75	0	302	13	74	39
Salvage Harvests	65	65									30	30		65	593	285		
Firewood			25	25														
Deferment			50	37	28	25	500	103			100	58					105	0
Hazard Reduction			50	50														
Pine/Spruce Management																		
Prescribed Fire															300	0		

	2011		2012		2013		2014		Total	Total
Workplan Activity	Plan Acres	Acres Comp.	Plan Acres	Acres Comp.	Plan Acres	Acres Comp	Plan Acres	Acres Comp.	Plan Acres	Acres Comp
Regeneration Harvests	21	0	37	0	7.5	7.5	41	0	946	525
Various Thinning Harvests	111	0	98	36	189	33	500	0	3624	1619
Salvage Harvests			92	51			50	0	830	496
Firewood									25	25
Deferment									783	223
Hazard Reduction									50	50
Pine/Spruce Management			18	0	30	10.3	10.3	10.3	58	10
Prescribed Fire							0	0	300	0